pure expertise

Avanti® Polar Lipids

The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

Merck is the exclusive supplier of Avanti® Polar Lipids to customers outside the United States.

Avanti®
Polar Lipids

Whether you specialize in lipidomics, or lipids are a regular part of your research, you know the critical role they play, and the inherent challenges they present. You don’t need to be a lipid specialist to know the importance of a trusted source.

Utmost Reliability

As the exclusive global supplier of Avanti® Polar Lipids outside the U.S., our partnership brings you more leading products and expertise to support all of your lipid needs. Thanks to our robust logistics and e-commerce network, ordering is easy, inventory is reliable, and support is always within reach.

Highest Purity

There are companies that make lipids. Then there is Avanti®. From synthesis to purification, many layers go into making high purity lipids, with checks and balances in each step of the way. A proven approach, developed over 50 years of experience, ensures that each and every lipid you receive is the good stuff.

What is the good stuff? It is lipids that have undergone extensive oversight by a highly skilled research team. It is purity of more than 99% that contributes directly to the success of your research and product development. It is the passion to continually develop and enhance solutions for your entire product cycle, while maintaining ethical standards. People do amazing things with Avanti® lipids. What will you do?

The good stuff

- >2,000 Avanti® products with >99% purity in research portfolio
- High-purity natural and synthetic phospholipids, sphingolipids, and sterols
- Fluorescent lipids, adjuvants, lipid binding antibodies, and more
- Lipidomics tools for studying lipid structure and function
- Avanti® Mini-Extruder for liposome preparation

Browse the portfolio
SigmaAldrich.com/Avanti

Alphabetical Product Overview

Application Overview

Research Portfolio

Highest purity on the market giving you the best possibility for success

UltimateSPLASH™ ONE **16**

Complete internal standard solution for quantitative lipidomics

Mass Spec Standards **10**

Chemically pure synthetic lipid standards for precise quantization or identification of major lipid classes, including: glycerolipids, glycerophospholipids, sphingolipids, and sterols

Quantitative Standards **10**

For identifying structure or concentration of molecular species in mass spectrometry

Adjuvants

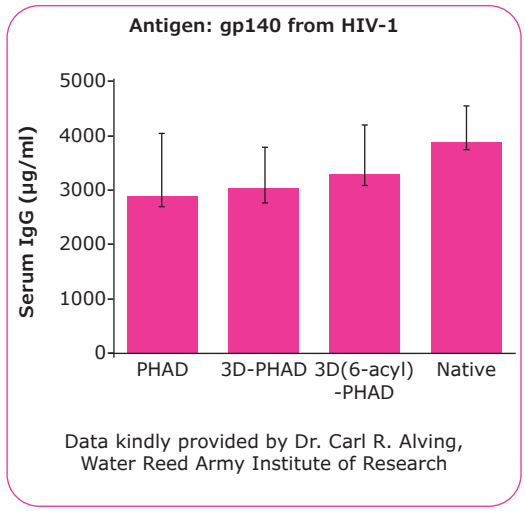
Immunotherapy & Vaccine Development

Monophosphoryl Lipid A (MPL) Adjuvants

Vaccine adjuvants using heterogeneous monophosphoryl Lipid A (MPL) derived from Salmonella minnesota R595 have proven to be safe and effective at inducing Th-1 type immune responses to heterologous proteins in animal and human vaccines. Avanti® revolutionized immunotherapy and vaccine development with the introduction of synthetic MPL derivatives and adjuvant systems. Today, you can choose from multiple synthetic analogs of MPL containing a single molecular species, which are as effective and safe at inducing an immune response as their natural product predecessor. PHAD®, 3D-PHAD®, and 3D(6A)-PHAD® are manufactured according to cGMP guidelines, and available in bulk quantities for your clinical trials.

Adjuvant Systems

Immunotherapy and vaccine programs can expend valuable time and resources on developing adjuvant preparations. Benefit from formulation services for both pre-clinical and clinical development using cGMP-manufactured lipids. Batches can be scaled from a few milliliters to more than 100 liters to accommodate your stage of clinical development. Close cooperation with your packaging group throughout the process ensures that you receive material suitable for aseptic fill/finish in your final dosage form for clinical trials. When you are ready for commercialization, we work in partnership with your CMO to provide a seamless transfer of the formulation for scale-up and manufacturing.

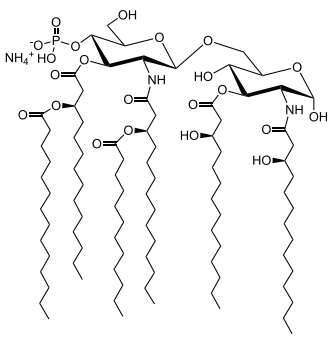


Data kindly provided by Dr. Carl R. Alving, Water Reed Army Institute of Research

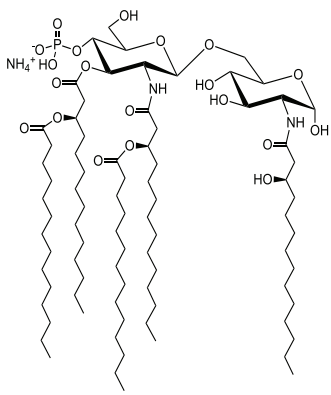
Adjuvant Activity

PHAD®, 3D-PHAD®, and 3D(6A)-PHAD® have been tested extensively on animals using a variety of antigens. In all cases, these adjuvants exhibit a similar activity and safety profile to bacterially-derived MPL. The graph below demonstrates the equivalency of the three synthetic adjuvants to the bacterially-derived MPL, when presented in a liposomal carrier system (DMPC/DMPG/cholesterol).

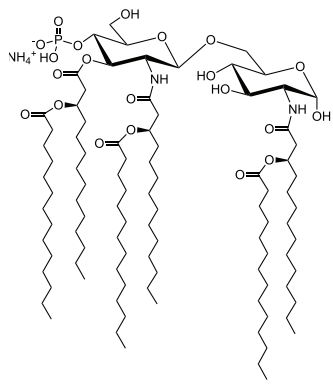
Synthetic Lipid A



PHAD®



3D-PHAD®

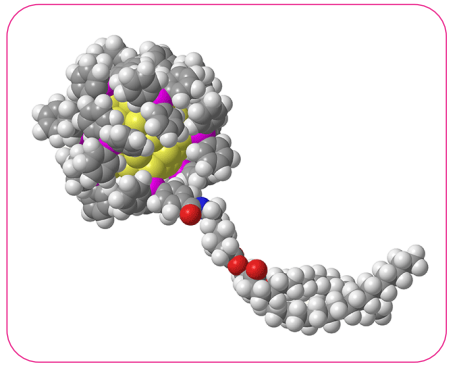


3D(6A)-PHAD®

Monophosphoryl Lipid A (MPL) Adjuvants

Cat. No.	Description
699855P	3D-(6-acyl) PHAD® Monophosphoryl Hexa-acyl Lipid A, 3-Deacyl (Synthetic), powder
890810C	18:0 DDAB Dimethyldioctadecylammonium (Bromide Salt), chloroform
890810P	18:0 DDAB Dimethyldioctadecylammonium (Bromide Salt), powder
699500P	Kdo2-Lipid A (KLA) Di[3-deoxy-D-manno-octulosonyl]-lipid A (ammonium salt), powder
699200P	Lipid A - Purified Lipid A Detoxified (Salmonella minnesota R595), powder
699851P	3A-MPLA Monophosphoryl Tri-acyl Lipid A (Synthetic), powder
699854P	4A-MPLA (isomer C3) Monophosphopdyl Tetra-acyl Lipid A, powder
699800P	MPLA (PHAD®) Monophosphoryl Lipid A (Synthetic) (PHAD®), powder
699852P	3D-PHAD® Monophosphoryl 3-Deacyl Lipid A (Synthetic) Pat No. 9,241,988, powder
699810P	PHAD®-504 Monophosphoryl Lipid A-504, powder
890808P	22:0 Trehalose D-(+)-trehalose 6,6′-dibehenate, powder
890809P	Trehalose monooleate D-(+)-trehalose 6-monooleate, powder

Aurora® Gold Probes



Aurora®-DSG Nanoparticles

This new conjugate consists of an Aurora™ gold cluster capped with triphenylphosphine ligands and a single diglyceride ligand. Fifty-five gold atom nanoparticles, first described by Schmid, are fascinating structures that are commonly used as contrast agents in various imaging applications. Unlike larger colloidal style particles, these nanoparticles are less intrusive to the target application, and behave like an organic entity, instead of a foreign metallic probe. They also are a great generic platform for bottom-up synthesis of novel, gold-centered nanostructures, due to the ease and completeness of ligand exchange reactions. This complex is readily visible under TEM, and can be viewed under optical microscopes if further processed using a silver development procedure.

Aurora®-PLC Nanoparticles

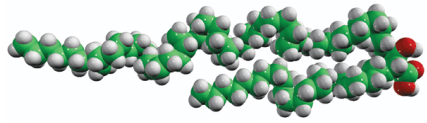
These 3-5 nm gold nanoparticles are stabilized with dodecanethiol, and coated with 1-myristoyl-sn-glycero-3-phosphocholine.

Cat. No.	Description
550001P	Aurora-DSG
550002P	Aurora-PLC

Bacterial Lipids

Cat. No.	Description
791280P	α-Mycolic acid (C80)
791281P	α-Mycolic acid, methoxy cis
791282P	α-Mycolic acid, keto cis
857500C	17:0 Cyclo acid
857501P	16:0-17:0 Cyclo PC
857520P	N-Hexanoyl-L-homoserine lactone
857521P	N-Octanoyl-L-homoserine lactone
857522P	N-Dodecanoyl-L-homoserine lactone

Cat. No.	Description
857523P	N-Tetradecanoyl-L-homoserine lactone
857524P	N-Tetradecanoyl-D-homoserine lactone
857503P	16:0-a15:0 PC
857504P	16:0-i15:0 PC
857510P	anteiso 15:0 fatty acid
857511P	iso 15:0 fatty acid



α-mycolic acid (C80)

Mycolic acid is a long Fatty acid found in the cell walls of the mycolata taxon, a group of bacteria that includes

Bioactive Lipids

Cat. No.	Description
791056P	2-OHOA
857380P	SLP7111228
857392O	(R)-FTY720-OMe
870850P	12:0 Carnitine
850336P	12:0 Phosphocholine
850338P	14:0 Phosphocholine
870851P	16:0 Carnitine
870510C	16:0 CDP DG
870510P	16:0 CDP DG
870436P	16:0 P-anandamide
850337P	16:0 Phosphocholine
870606P	16:0-05:0 (ALDO) PC
870602C	16:0-05:0 (COOH) PC
870602P	16:0-05:0 (COOH) PC
870605P	16:0-09:0 (ALDO) PC
870600C	16:0-09:0 (COOH) PC
870600P	16:0-09:0 (COOH) PC
872101C	16:0-20:4 PE-N-20:4
870437P	17:0 P-anandamide
870431P	17:1 anandamide
870432P	18:1 anandamide
870520C	18:1 CDP DG
870520P	18:1 CDP DG
870438C	18:1 P-anandamide
872120C	18:1 PE-N-16:0
872110C	18:1 PE-N-18:1
872100C	18:1 PE-N-20:4
860568P	18:1-12:0 Bio PIP3
870852C	18:1delta9-cis Carn
870852P	18:1delta9-cis Carn
870439C	18:2 P-anandamide
870450O	2-AG
870454O	2-AG-d11

Cat. No.	Description
870451O	2-OG
870430O	20:4 anandamide
870440C	20:4 P-anandamide
870855A	3-Methylglut-L-Carn
870608H	4R-HNE-DA
857466W	AEA-d11
857465W	AEA-d4
860567P	Biotin PI(4,5)P2
870865P	BMP22
878119P	C16 Lyso PAF
878118P	C16-02:0 DG
878110P	C16-02:0 PC(C16 PAF)
878115P	C16-04:0 PC
870601C	C16-09:0(COOH) PC
870601P	C16-09:0(COOH) PC
878112C	C16-18:1 PC
878112P	C16-18:1 PC
878130C	C16-18:1 PE
878122P	C16-20:3 PC
878113C	C16-20:4 PC
878123C	C16-20:5 PC
878124C	C16-22:6 PC
878101P	C17 Lyso PAF
878100C	C17-02:0 PC
878120P	C18 Lyso PAF
878114P	C18-02:0 PC(C18 PAF)
878116P	C18-04:0 PC
878126C	C18:1 Lyso PAF
878126P	C18:1 Lyso PAF
840524P	DGDG
857464P	DGTS
857395P	GT-11
840527P	Hydrogenated DGDG

Cat. No.	Description
840526P	Hydrogenated MGDG
857411P	IG4
857410P	IG7
857412P	IG8
850200P	Lexiscan
850334P	MAPCHO®-10
840523P	MGDG
800740P	N-16:0 L-Serine
800730P	N-16:0 L-Serine MeEster
800725P	N-16:0-Tyrosine PO4
800731P	N-18:1 L-Ser MeEster
800741P	N-18:1 L-Serine
870818M	N-20:4 Glycine
800742C	N-20:4 L-Serine
800732C	N-20:4 L-Serine MeEster
870819P	N-Oleoyl Glycine
800715P	N-P Serine PA
870817P	N-Palmitoyl Glycine
857397P	NIBR189
870604P	oxPAPC
857390P	S1P (R-isomer)
857391P	S1P (S-isomer)
857382P	SLC5111312
857381P	SLM6031434
840525P	SQDG
870853P	ST1326
857393P	THI
857345P	VPC 01091
857368P	VPC 01211
857341P	VPC 12249(S)
857360P	VPC 23019
857367P	VPC 23153
857365P	VPC 24191

Cat. No.	Description
857353P	VPC 31143(R)
857350P	VPC 32179(R)
857340P	VPC 32183(S)
857346P	VPC 44116
857347P	VPC 51299
857370P	VU0155056

Cat. No.	Description
857372P	VU0285655-1
857371P	VU0359595

Click Reagents

Cat. No.	Description
870130P	1,2-Distearoyl-sn-glycero-3-phosphocholine (N-azidoethyl)
860369P	1,2-Distearoyl-sn-glycero-3-phosphocholine (N-propynyl)
870127P	16:0 Alkyne Cap PE
870126P	16:0 Azido Cap PE
860853P	16:0 Azido Coenzyme A
870131P	16:0 Azidoethyl SM (d18:1/16:0)
870128P	16:0 DBCO PE
860711P	16:0 Propargyl SM (d18:1-16:0)
900407P	16:0-pacFA PC
900400P	16:0(15-yne) Acid
900413P	16:0(alkyne)-18:1 PC

Cat. No.	Description
900414P	16:0(alkyne)-18:1 PE
870129C	18:1 DBCO PE
860378P	18:1 propargyl PC
900411E	20:4 acid-alkyne
860760P	Azido sphingosine (d14:1)
860831P	C6(6-azido) Ceramide
860833P	C6(6-azido) GalCer
860834P	C6(6-azido) GluCer
860832P	C6(6-azido) LacCer
810340P	Click PI(4,5)P2-azido
860857P	N3C14SOBRAC
900415C	Oleic Acid (18-azido)
900412E	Oleic acid(17-yne)

Cat. No.	Description
900401P	pacFA
900404P	pacFA Ceramide
900406P	pacFA GalCer
900405P	pacFA GlcCer
900408P	pacFA-18:1 PC
900602P	Photoclick C6 Ceramide
700147P	PhotoClick Chol
900600P	Photoclick Sphingo
900601P	Photoclick sphingosine-1-phosphate
880348P	Trifunctional fatty acid
860960M	Trifunctional Sphingosine

Lipidomics

Immunotherapy & Vaccine Development

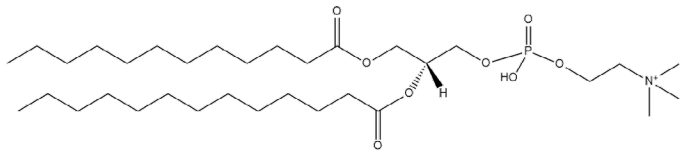
For fresh or seasoned lipid researchers, the Avanti® Lipidomics Division is constantly developing revolutionary tools that give you new ways to answer fundamental questions about lipid structure and function.

Mass Spec Standards

Identifying the structure or determining the accurate concentration of each molecular species in mass spectrometry-based research requires well-defined internal standards. Whatever your application, Avanti® chemically pure synthetic lipid standards ensure precise quantization or identification of major lipid classes, including glycerolipids, glycerophospholipids, sphingolipids, and sterols.

Quantitative standards are characterized and prepackaged in unit containers at defined concentrations. A detailed certificate of analysis accompanies each standard, and stability is monitored by expert QC staff.

Qualitative standards aid in the general identification of lipids by mass spec analysis.



12:0-13:0 PC
1-dodecanoyl-2-tridecanoyl-sn-glycero-3-phosphocholine

LIPIDMAPS Quantitative MS Standards

Cat. No.	Description
LM1000	12:0-13:0 PC
LM1100	12:0-13:0 PE
LM1200	12:0-13:0 PG
LM1500	12:0-13:0 PI
LM1300	12:0-13:0 PS
LM1600	13:0 LPC
LM1004	17:0-14:1 PC
LM1104	17:0-14:1 PE
LM1204	17:0-14:1 PG
LM1504	17:0-14:1 PI
LM1304	17:0-14:1 PS
LM1002	17:0-20:4 PC
LM1102	17:0-20:4 PE
LM1202	17:0-20:4 PG
LM1502	17:0-20:4 PI
LM1903	17:0-20:4 PI(3,4)P2

Cat. No.	Description
LM1905	17:0-20:4 PI(3,5)P2
LM1900	17:0-20:4 PI(3)P
LM1904	17:0-20:4 PI(4,5)P2
LM1901	17:0-20:4 PI(4)P
LM1902	17:0-20:4 PI(5)P
LM1302	17:0-20:4 PS
LM1906	17:0-20:4PI(3,4,5)P3
LM1701	17:1 LPA
LM1601	17:1 LPC
LM4000	19:0 Cholesterol
LM1003	21:0-22:6 PC
LM1503	21:0-22:6 PI
LM4113	25OH-Cholesterol(D6)
LM4114	27OH-Cholesterol(D6)
LM4103	7alpha-hydroxycholesterol (D7)
LM2212	C12 Ceramide

Cat. No.	Description
LM6003	Cardiolipin Mix I
LM6002	Cer/Sph Mixture I
LM6005	Cer/Sph Mixture II
LM4100	Cholesterol (D7)
LM6001	d5-DG ISTD Mix I
LM6004	d5-DG ISTD Mix II
LM6000	d5-TG ISTD Mix I
330714W	Deuterated Psychosine Quantitative Mass Spec Standard
LM2511	Glc(ß) C12 Ceramide
LM2512	Lac(ß) C12 Ceramide
330715W	Psychosine Quantitative Mass Spec Standard
LM2001	Sphinganine (C17)
LM2312	Sphingomyelin (C12)
LM2144	Sphingos-1-PO4 (C17)
LM2000	Sphingosine (C17)

Deuterated Ceramide LIPIDOMIX® Quantitative Mass Spec Internal Standard

Product Number 330713X-1EA

Deuterated version of 4 ceramide compounds found to be relevant in determining CVD risk. Each ampoule contains 1 mL of 1:1 DCM:MeOH solution with a mixture of four lipid standards. Concentrations are verified for use as a quantitative standard.

Mixture Component	MW	µg/mL	µM
C16 Ceramide-d7 (d18:1-d7/16:0)	544.944	21.8	40
C18 Ceramide-d7 (d18:1-d7/18:0)	572.997	11.5	20
C24 Ceramide-d7 (d18:1-d7/24:0)	650.113	26.3	40
C24:1 Ceramide-d7 (d18:1-d7/24:1(15Z))	655.141	13.1	20

Ceramide LIPIDOMIX® Quantitative Mass Spec Standard

Product Number 330712X-1EA

Calibration mixture of 4 compounds found to be relevant in determining CVD risk. Each ampoule contains 1 mL of 1:1 DCM:MEOH solution with a mixture of four lipid standards. Concentrations are verified for use as a quantitative standard.

Mixture Component	MW	µg/mL	µM
C16 Ceramide (d18:1/16:0)	537.901	16.1	30
C18 Ceramide (d18:1/18:0)	565.954	8.5	15
C24 Ceramide (d18:1/24:0)	650.113	48.8	75
C24:1 Ceramide (d18:1/24:1(15Z))	648.097	24.3	37.5

SPLASH® LIPIDOMIX® Quantitative Mass Spec Internal Standard

Product Number 330707-1EA

Deuterated lipid internal standards in amounts relative to human plasma lipid concentrations. Each sealed ampoule contains 1 mL methanol solution containing 14 lipid classes. Concentrations are verified for use as a quantitative standard.

Mixture Component	MW	µg/mL	µM
15:0-18:1(d7) PC	753.11	160	210
15:0-18:1(d7) PE	711.03	5	7
15:0-18:1(d7) PS (Na Salt)	777.02	5	7
15:0-18:1(d7) PG (Na Salt)	764.02	30	40
15:0-18:1(d7) PI (NH4 Salt)	847.13	10	12
15:0-18:1(d7) PA (Na Salt)	689.94	7	10
18:1(d7) Lyso PC	528.72	25	45
18:1(d7) Lyso PE	486.64	5	10
18:1(d7) Chol Ester	658.16	350	530
18:1(d7) MAG	363.59	2	5
15:0-18:1(d7) DAG	587.98	10	16
15:0-18:1(d7)-15:0 TAG	812.37	55	70
d18:1-18:1(d9) SM	738.12	30	40
Cholesterol (d7)	393.71	100	250

SPLASH® II LIPIDOMIX® Quantitative Mass Spec Internal Standard

Product Number 330709W-1EA

Deuterated lipid internal standards in amounts relative to human plasma lipid concentration now includes plasmalogen species. Each sealed ampoule contains 1 mL methanol solution with a mixture of 12 lipid standards. Concentrations are verified for use as a quantitative standard.

Mixture Component	MW	µg/mL	µM
15:0-18:1(d7) PC	753.11	160	210
15:0-18:1(d7) PE	711.03	5	7
15:0-18:1(d7) PS (Na Salt)	777.02	8	10
15:0-18:1(d7) PI (NH_4 Salt)	847.13	8	10
18:1(d7) Lyso PC	528.72	25	45
18:1(d7) Lyso PE	486.64	0.5	1
18:1(d7) Chol Ester	658.16	350	530
C18(Plasm)-18:1(d9) PC	781.19	8	10
15:0-18:1(d7) DAG	587.98	12	20
15:0-18:1(d7)-15:0 TAG	812.37	55	70
d18:1-18:1(d9) SM	738.12	30	40
C18(Plasm)-18:1(d9) PE	739.11	0.07	0.1

Odd-Chained LIPIDOMIX® Quantitative Mass Spec Internal Standard

Product Number 330711X-1EA

Odd-chained lipids for use as internal standards in lipidomic analysis. Each sealed ampoule contains 1 mL 1:1 DCM:MeOH solution with a mixture of 16 lipid standards. Concentrations are verified for use as a quantitative standard.

Mixture Component	MW	µg/mL	µM
17:1 Lyso PG (Na Salt)	518.56	13	25
17:1 Lyso PA (NH_4 Salt)	439.524	15	36
17:1 Lyso PI (NH_4 Salt)	601.664	13	22
17:1 Lyso PS (Na Salt)	531.552	13	25
17:1 Lyso PC	507.641	575	1125
17:1 Lyso PE	465.568	12	25
17:0-17:0 DAG	596.978	300	500
17:0-17:0-17:0 TAG	849.42	1500	1750
12:0 SM (d18:1/12:0)	646.922	650	1000
17:0-14:1 PC	717.996	3775	5250
17:0-14:1 PS (NH_4 Salt)	736.957	180	250
17:0-14:1 PG (NH_4 Salt)	723.958	90	125
17:0-14:1 PA (NH_4 Salt)	649.879	15	25
17:0-14:1 PE	675.917	120	175
17:0-14:1 PI (NH_4 Salt)	812.02	200	250
17:0 Chol Ester	639.089	8475	13250

LIPIDOMIX® Quantitative Mass Spec Standards

- Single-use vials
- Ready-to-use concentrations
- Concentrations verified using quantitative NMR
- Certificate of analysis for every batch
- Faster standards preparation with high-purity Avanti® LC/MS-grade solvents

Cat. No.	Description
330731	EquiSPLASH™
330732	LightSPLASH™
330722C	15:0-18:1 DG
330721C	15:0-18:1 PA
330716C	15:0-18:1 PC
330717C	15:0-18:1 PE
330718C	15:0-18:1 PG
330720C	15:0-18:1 PI
330719C	15:0-18:1 PS
330723C	15:0-18:1-15:0 TG
791647C	15:0-18:1(d7) DG
791642C	15:0-18:1(d7) PA
791637C	15:0-18:1(d7) PC
791638C	15:0-18:1(d7) PE
791640C	15:0-18:1(d7) PG
791641C	15:0-18:1(d7) PI
791639C	15:0-18:1(d7) PS
791648C	15:0-18:1(d7)-15:0TG
791660P	16:0(d9) Ceramide
791661P	16:0(d9) DHCeramide
700269C	18:1 Chol Ester
330724C	18:1 MG
860587C	18:1 SM (d18:1/18:1(9Z))
860587C	18:1 SM (d18:1/18:1(9Z))

Cat. No.	Description
791645C	18:1(d7) Chol ester
791643C	18:1(d7) Lyso PC
791644C	18:1(d7) Lyso PE
791646C	18:1(d7) MG
791649C	18:1(d9) SM
330730C	C15 Ceramide (d18:1/15:0)
330823L	CER Internal Standard Mixture - Ultimate SPLASH™
330712X	Ceramide LIPIDOMIX® Mass Spec Standard
330822L	Chol Ester Internal Standard Mixture - Ultimate SPLASH™
330713X	Deuterated Ceramide LIPIDOMIX® Mass Spec Standard
330829L	DG Internal Standard Mixture - Ultimate SPLASH™
330708X	Differential Ion Mobility System Suitability LIPIDOMIX® Kit
330834L	Lyso PC Internal Standard Mixture - Ultimate SPLASH™
330835L	Lyso PE Internal Standard Mixture - Ultimate SPLASH™
330833L	Lyso PG Internal Standard Mixture - Ultimate SPLASH™
330831L	Lyso PI Internal Standard Mixture - Ultimate SPLASH™

Cat. No.	Description
330832L	Lyso PS Internal Standard Mixture - Ultimate SPLASH™
330710X	Mouse SPLASH® LIPIDOMIX® Mass Spec Standard
791923P	N16:0(d9)phytosphing
330711X	Odd-Chained LIPIDOMIX® Mass Spec Standard
330700W	OxysterolSPLASH™ LIPIDOMIX® Quantitative Mass Spec Internal Standard
330825L	PC Internal Standard Mixture - Ultimate SPLASH™
330826L	PE Internal Standard Mixture - Ultimate SPLASH™
330827L	PG Internal Standard Mixture - Ultimate SPLASH™
330830L	PI Internal Standard Mixture - Ultimate SPLASH™
330828L	PS Internal Standard Mixture - Ultimate SPLASH™
330824L	SM Internal Standard Mixture - Ultimate SPLASH™
330707	SPLASH Standard
330709W	SPLASH® II LIPIDOMIX® Mass Spec Standard
330821L	TG Internal Standard Mixture - UltimateSPLASH™

MS Qualitative Standards

Cat. No.	Description
800812P	12:0 DG
840445P	14:0 PG
860900C	14:0/16:1/14:0 TG-D5
860901P	15:0/18:1/15:0 TG-D5
800816P	16:0 DG
840857C	16:0-18:1 PA
840457C	16:0-18:1 PG
840034C	16:0-18:1 PS
840499C	16:0-20:4 PG
840061C	16:0-20:4 PS
860902P	16:0/18:0/16:0 TG-D5
700186M	17:0 Chol ester
830756P	17:0 PE
860903P	17:0/17:1/17:0 TG-D5

Cat. No.	Description
800820P	18:0 DG
840465P	18:0 PG
840029P	18:0 PS
800821C	18:0-16:0 DG
840039C	18:0-18:1 PS
840505C	18:0-20:4 PG
840064C	18:0-20:4 PS
840506C	18:0-22:6 PG
840065C	18:0-22:6 PS
860904P	19:0/12:0/19:0 TG-D5
860905P	20:0/20:1/20:0 TG-D5
700019P	25-OH Cholesterol
700021P	27-OH Cholesterol
700036P	4ß-OH cholesterol

Cat. No.	Description
700032P	5α,6α-Epoxy Chol
700015P	7-ketocholesterol
700035P	7ß-OH cholesterol
700034P	7α-OH Cholesterol
700064P	Cholestanol
700065P	Cholestenone
700000P	Cholesterol
700060P	desmosterol
700024P	Dihydroxy Chol III
900200O	Dolichol(13~21)
900210O	Polyprenol(13~21)
870110O	Triolein
700118P	zymostenol
700068P	Zymosterol

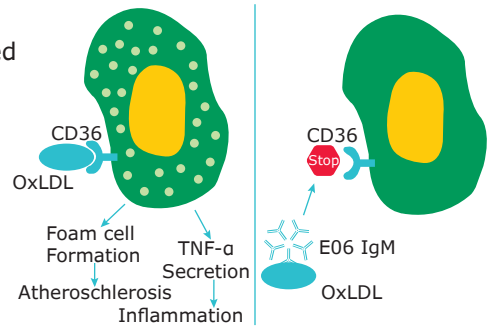
Lipid Binding Antibodies

Studying the role of lipids as cofactors, agonists, or antagonists in cellular signaling events is increasingly common. Avanti® monoclonal antibodies are selected against bioactive lipids to detect the presence of these species, or the downstream signals that they stimulate. Add them to your basic signaling and disease research.

E06 Monoclonal Antibody (Anti-Oxidized Phospholipid)

There is a growing body of evidence that oxidized lipids, particularly oxidized phospholipids (OxPL), play a crucial role in the development and pathology of inflammatory diseases and some infectious diseases. Atherosclerosis is widely considered to be a chronic inflammatory disease, and the presence of elevated levels of plasma low-density lipoproteins (LDL) is a major risk factor. Since oxidized LDL (OxLDL), with its associated OxPL, plays a major role in atherogenesis, antibodies that specifically recognize OxLDL are needed.

The E06 monoclonal antibody can discriminate between native LDL and OxLDL by binding to the phosphocholine headgroup that is present in OxLDL but absent from native LDL. In addition, E06 can detect OxPL in cells, tissues, membranes and lipoproteins in a variety of inflammatory settings.

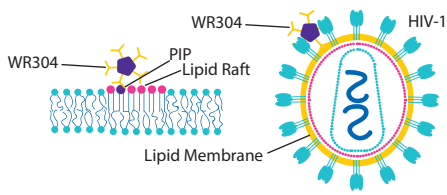


E06 has been used for the quantitation of oxidized LDL in sandwich enzyme-linked immunosorbent assay (ELISA), direct ELISA, competitive ELISA, immunohistochemistry (IHC), and Western blot analysis. The antibody specifically binds to the phosphatidylcholine headgroup of many oxidized phospholipids, and inhibits the binding of OxLDL to macrophages. A biotinylated form of E06 is used for ELISA determination of OxLDL in serum or plasma samples. Furthermore, a TopFluor®-conjugated E06 antibody is available for immunohistochemistry, including confocal microscopy.

Cat. No.	Description
330001S	E06 mAb
330002S	E06 mAb-biotinylated
330003S	E06 mAb-TopFluor
330021S	WR304 mAb
330022S	WR304 mAb-biotinylated

WR304 Antibody for HIV and Lipid Research

WR304 is a polyvalent antibody designed for probing the presence of procollagen type I C-peptide (PIP) and PIP2. It binds specifically to PIP, PIP2, sulfatide, depo-medroxyprogesterone acetate (DMPA), cholesterol, squalene, and Lipid A. When WR304 binds to PIP, it inhibits the infectivity of HIV-1 to peripheral blood mononuclear cells (PBMC), thereby neutralizing the virus. The antibody has been used for the quantitation of PIP in direct ELISA and dot blot analysis. A biotinylated form of WR304 is used for ELISA determination of PIP in serum or plasma samples.



Cat. No.	Description
330021S	WR304 Mouse Monoclonal Antibody (IgM), Anti-(PIP/PIP2), 1X TBS (Tris-Buffered Saline) with 1mM Na2 EDTA
330022S	WR304 Mouse Monoclonal Antibody (IgM), Biotinylated Anti-(PIP/PIP2), 1X TBS (Tris-Buffered Saline)

Lipid Toolbox

Build a Better Understanding of Lipid Functions

A lipid toolbox of integrated methodologies is essential for exploring the functional role of lipids in biological systems. Enhance your research with novel tools for probing protein-lipid interactions, enhanced systems for cellular lipid delivery, and robust assay kits.

Lipidomics Toolbox

Cat. No.	Description
790590P	Bicelle Blend (DMPC:DHPC (2.8:1, mol:mol))
640001P	Cer Delivery Kit
640011P	CerS1/S4 Assay EXP
640012P	CerS2 Assay EXP

Cat. No.	Description
640013P	CerS3 Assay EXP
640014P	CerS5/S6 Assay EXP
640020P	DMABA EXP
330006S	MB47

Cat. No.	Description
300202S	Pegylated Remote Loadable Liposome (2 mL)
300205S	Pegylated Remote Loadable Liposome (5 mL)
640009	siRNA Delivery Kit

Lipid Snoopers®

Characterize Protein-Lipid Interactions Across Disciplines

Lipid Snoopers® nitrocellulose membranes or 8-well ELISA strips are ideal for investigating protein-lipid interactions.

Snoopers® strips consist of various lipid subtypes spotted individually on a solid support. They provide a protein-lipid interaction profile to identify cell signaling events, characterize lipid-binding antibodies, and identify novel lipid-interacting proteins of potential therapeutic value. With Snoopers® strips, lipid-protein interactions can be probed using standard chemiluminescent detection methods to better understand the molecular mechanism of interactions between cellular components.

Snoopers® strips are precoated with a single high-quality lipid species in an 8-well format, ideal for quantitative lipid-protein-binding studies. Easily assemble a 96-well plate using only the lipids of interest for binding studies, or use 8 to 96 wells with one to 12 lipids as needed. The 8-well strips are available in optically clear, white, or black surfaces for use in colorimetric, luminescent, and fluorescent assays, respectively. Snoopers® ELISA strips allow multiple sample conditions to be probed simultaneously in a single plate, making them a perfect complement to Snoopers® nitrocellulose strips.

Lipid Snoopers®

Cat. No.	Description
330502	BMP Snoopers® Bis(Monoacylglycerol) Phosphate Snoopers®
330687	C16 Ceramide-1-Phosphate ELISA Snoopers®, Clear, for use in absorbance applications
330603	DMPC ELISA Snoopers®, Clear, for use in absorbance applications
330612	DOPC ELISA Snoopers®, Clear, for use in absorbance applications
330669	DOPE ELISA Snoopers®, Clear, for use in absorbance applications
330606	DOPS ELISA Snoopers®, Clear, for use in absorbance applications
330657	GD3 ELISA Snoopers®, Clear, for use in absorbance applications
330651	GM1 ELISA Snoopers®, Clear, for use in absorbance applications

Cat. No.	Description
330654	GM3 ELISA Snoopers®, Clear, for use in absorbance applications
330500	Inositol Snoopers®
330501	Oxidized Phospholipid Snoopers®
330602	OxPAPC ELISA Snoopers®, Black, for use in fluorescence applications
330600	OxPAPC ELISA Snoopers®, Clear, for use in absorbance applications
330627	18:1 PI ELISA Snoopers®, Clear, for use in absorbance applications
330633	18:1 PI(4,5)P2 ELISA Snoopers®, Clear
330678	Brain Sphingomyelin ELISA Snoopers®, Clear, for use in absorbance applications
330503	Sphingolipid Snoopers®

Huzzah® Lipid Delivery Across Disciplines

System for improved cellular delivery of lipid species through conjugation with human serum albumin (HSA).

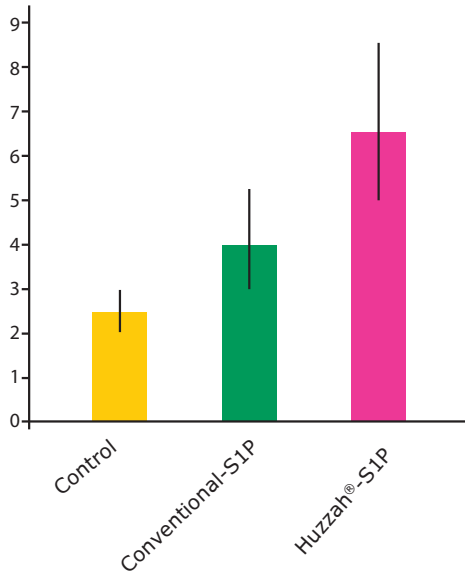
Ceramide Delivery System

The Huzzah® lipid delivery system is supplied as a lyophilized conjugate that can be directly and easily reconstituted in water or a buffer of choice, and is ideal for studying the effects of poorly soluble bioactive molecules. This conjugate system eliminates the need for organic solvents, which are known to adversely affect viability and phenotypic characteristics of cells. Ceramide forms stable, fluid bilayers with cholesteryl phosphocholine, and the Avanti® formulation has been shown to be more potent than solvent-delivered (DMSO) formulations of D-erythro-ceramide (C6-Cer) in inhibiting proliferation, inducing apoptosis, and disturbing calcium homeostasis. It is thought that DMSO formulations of C6-Cer are likely to precipitate into the cell culture medium, where the bioavailability of "crystalline" ceramide is limited. However, the formation of fluid bilayers, which are enriched in C6-Cer, prevent crystallization, and allow transfer of monomeric ceramide to cell membranes with enhanced bioavailability.

Pictured: Huzzah® S1P is shipped as a lyophilized powder. The photograph on the right shows the complex dissolved in water.

Inducing Astrocyte Migration with Huzzah® S1P

To show efficiency of induced migration, primary cultures of astrocytes (C57BL/6) were grown to confluency, and migration measured over 40 h in a scratch migration assay (scratch width: 500 µm). Cells incubated with 1 µm S1P that was pre-associated with the Huzzah® system were significantly ($n = 3$, $P < 0.05$) faster (6.5 ±1.8 µm/h) than control (2.5 ±0.5 µm/h) cells. They were also faster than cells that were incubated with 1 µm S1P prepared by solution in bovine serum albumin containing buffer, demonstrating that pre-associated S1P is more efficient in inducing migration than S1P prepared following conventional protocols.



Huzzah® Products

Cat. No.	Description
360493P	Huzzah® C1P, Human Serum Albumin / Ceramide-1-Phosphate Complex, powder
360000P	Huzzah® Control, Human Serum Albumin Control, powder
360500	Huzzah® KLA, Human Serum Albumin / Kdo2 Lipid A Complex, powder
360130P	Huzzah® LPA, Human Serum Albumin / Lyso Phosphatidic Acid Complex, powder
360205P	Huzzah® NBD-So, Human Serum Albumin / NBD Sphingosine Complex, powder
360492P	Huzzah® S1P, Human Serum Albumin / Sphingosine-1-Phosphate Complex, powder

Avanti® Huzzah® S1P 360492P:
The Huzzah® S11, kit contains 10 mg of C6 ceramide and 13.8 mg of cholesteryl phosphocholine, individually packaged and ready for use.

CerS Assay Kit

This easy-to-use kit is the optimal solution for measuring ceramide synthase (CerS) activity in biological samples.

Choose from many more methodologies to build your lipid toolbox, including:

- Monoclonal antibodies
- LIPID MAPS® mass spec standards

Dive into Lipidomics

UltimateSPLASH™ ONE

UltimateSPLASH™ ONE is the complete internal standard solution for quantitative lipidomics. It consists of one vial containing 69 high-purity deuterium-labeled internal standards covering 15 lipid classes. Each vial contains 1.2 ml of 1:1 DCM:MeOH solution that has been meticulously characterized, quantitated, and blended for accurate quantitation using multiple lipidomics techniques.

Cat. No.	Description
330820L	Ultimate SPLASH™ ONE

Cat. No.	Description
860906L	14:0-13:0-14:0 TG-d5
860907L	14:0-15:1-14:0 TG-d5
860908L	14:0-17:1-14:0 TG-d5
700220L	14:1 cholesteryl-d7 ester
870309L	15:0 Lyso PC-d5
856709L	15:0 Lyso PE-d5
858123L	15:0 Lyso PG-d5
850107L	15:0 Lyso PI-d5
858146L	15:0 Lyso PS-d5
860910L	16:0-15:1-16:0 TG-d5
860909L	16:0-17:1-16:0 TG-d5
860911L	16:0-19:2-16:0 TG-d5
700221L	16:1 cholesteryl-d7 ester
860741L	16:1 SM (d18:1/16:1)-d9
855679L	17:0 Lyso PC-d5
856710L	17:0 Lyso PE-d5
858130L	17:0 Lyso PG-d5
850108L	17:0 Lyso PI-d5
858148L	17:0 Lyso PS-d5
800827L	17:0-14:1 DG-d5
855683L	17:0-14:1 PC-d5
856721L	17:0-14:1 PE-d5

Cat. No.	Description
858135L	17:0-14:1 PG-d5
850109L	17:0-14:1 PI-d5
858153L	17:0-14:1 PS-d5
800826L	17:0-16:1 DG-d5
855682L	17:0-16:1 PC-d5
856720L	17:0-16:1 PE-d5
858134L	17:0-16:1 PG-d5
850110L	17:0-16:1 PI-d5
858152L	17:0-16:1 PS-d5
800824L	17:0-18:1 DG-d5
855681L	17:0-18:1 PC-d5
856719L	17:0-18:1 PE-d5
858133L	17:0-18:1 PG-d5
850111L	17:0-18:1 PI-d5
858151L	17:0-18:1 PS-d5
800825L	17:0-20:3 DG-d5
855680L	17:0-20:3 PC-d5
856718L	17:0-20:3 PE-d5
858132L	17:0-20:3 PG-d5
850112L	17:0-20:3 PI-d5
858150L	17:0-20:3 PS-d5
800823L	17:0-22:4 DG-d5
855678L	17:0-22:4 PC-d5
856717L	17:0-22:4 PE-d5
858131L	17:0-22:4 PG-d5

Cat. No.	Description
850118L	17:0-22:4 PI-d5
858149L	17:0-22:4 PS-d5
700222L	18:1 cholesteryl-d7 ester
860740L	18:1 SM (d18:1/18:1)-d9
860914L	18:1-17:1-18:1 TG-d5
860912L	18:1-19:2-18:1 TG-d5
860913L	18:1-21:2-18:1 TG-d5
855778L	19:0 Lyso PC-d5
856716L	19:0 Lyso PE-d5
858129L	19:0 Lyso PG-d5
850106L	19:0 Lyso PI-d5
858147L	19:0 Lyso PS-d5
860742L	20:1 SM (d18:1/20:1)-d9
700223L	20:3 cholesteryl-d7 ester
860743L	22:1 SM (d18:1/22:1)-d9
700226L	22:4 cholesteryl-d7 ester
860744L	24:1 SM (d18:1/24:1)-d9
860748L	C16:1 Ceramide-d7 (d18:1-d7/16:1)
860747L	C18:1 Ceramide-d7 (d18:1-d7/18:1)
860746L	C20:1 Ceramide-d7 (d18:1-d7/20:1)
860745L	C22:1 Ceramide-d7 (d18:1-d7/22:1)
860679L	C24:1 Ceramide-d7 (d18:1-d7/24:1)

Other

Lipid Mixtures

Cat. No.	Description
790404C	18:1 DGS-NTA(Ni)
790404P	18:1 DGS-NTA(Ni)
790304C	Coag Reagent I
790304P	Coag Reagent I
790413C	Coag Reagent II

Cat. No.	Description
790413P	Coag Reagent II
790625C	DC-Chol/DOPE Blend
790625P	DC-Chol/DOPE Blend
790326P	Fluorescent Transfection Reagent
888787D	PAMPA Lipid Blnd I

Cat. No.	Description
790310P	Transfect Reagent I
790595P	Upstate Lipid Blend

Liposomal Doxorubicin Nano-Drug

Cat. No.	Description
300113S	Control (2mL vial)
300116S	Control (5mL vial)

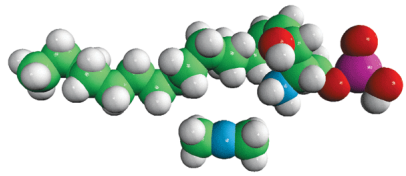
Cat. No.	Description
300104S	Dox-NP (2ml Kit)
300107S	Dox-NP (5ml Kit)

Cat. No.	Description
300112S	Dox-NP® (2mL vial)
300115S	Dox-NP® (5mL vial)

Sphingolipids

Sphingolipids are a class of lipids with a polar head group and two nonpolar tails. The core of a sphingolipid is an amino alcohol called sphingosine. Complex sphingolipids located in the plasma membrane of animal cells (especially nerve cells) have a structural function, and are believed to protect the cell surface from harmful environmental factors. They also serve as adhesion sites for extracellular proteins, and play important roles in signal transmission and cell recognition. Sphingolipids are involved in diseases including diabetes, cancer, microbial infections, neurological syndromes, and cardiovascular disease. Types of sphingolipids include: ceramides, phytoceramide, sphingomyelins, glycosphingolipids, gangliosides, cerebrosides, and sulfatides (sulfated cerebrosides).

There is a great deal of knowledge about sphingolipids from biochemical studies of their signaling properties, the cloning of enzymes of sphingolipid metabolism, the development of genetic models of their physiological roles, and from methods for their detection and quantitation. We offer an extensive variety of products to aid sphingolipid research.



Sphingosine-1-Phosphate (DMA Adduct)
D-erythro-sphingosine-1-phosphate (DMA Adduct)

Sphigolipids

Cat. No.	Description
860580C	02:0 SM (d18:1/2:0)
860580P	02:0 SM (d18:1/2:0)
860582C	06:0 SM
860582P	06:0 SM
860493P	1-Deoxysphinganine
860470P	1-deoxysphingosine
860473P	1-Desoxy Methyl SPHA
860477P	1-desoxymethylsphingosine
860683P	12:0 Dihydro SM
860583P	12:0 SM
860688P	14:0 SM (d18:1/14:0)
860594P	16:0 3-deoxy-C1P
868584P	16:0 D31 SM
860584P	16:0 SM
860684P	16:1 SM
860585P	17:0 SM
860586P	18:0 SM
860587C	18:1 SM
860587P	18:1 SM
860067P	24:0 CPE (d18:1/24:0)
860592P	24:0 SM
860924P	24:0(2R-OH) PhytoSPH
860068P	24:1 CPE (d18:1/24:1)
860593P	24:1 SM
860469P	3-deoxysphingosine
860668P	4E,11Z-Sphingadiene
860066P	Brain CPE
860480P	C10 bisphosphonate
860632P	C14 dihydroceramide (d18:0/14:0)
860602P	C17-D-ribo PhySphing
860701P	C17:0 GA2
860699P	C17:0 GB3 (synthetic)
860722P	C17:0 iGB3 (synthetic)
860074W	C18:0 GM3 (synthetic)

Cat. No.	Description
860647P	C18:1 Ceramide (d17:1/18:1(9Z))
860644P	C2 Ceramide (d17:1/2:0)
860648P	C20 Ceramide (d17:1/20:0)
860650P	C24:1 Ceramide (d17:1/24:1(15Z))
860478P	cis-4-Me sphingosine
860474P	D-ery-1-deoxySPHA-d3
860490P	D-erythro-Sphingosin
860441P	D-glucosyl-α 1-1'-D-erythro-sphingosine
860579P	DiMe-GalSph
860621P	Dimethyl Sphinganine (d18:0)
860622P	Dimethyl Sphinganine-1-Phosphate (d18:0)
860642C	Dimethyl Sphingosine (d17:1)
860601P	Dimethyl Sphingosine-1-Phosphate (d18:1)
860496O	Dimethylsphingosine
860537P	Galactosyl(ß) Sphing
860437P	Galactosyl(α)Sphingosine(D18:1)
860438P	glucosyl (beta) Sphingosine (d20:1)
860535P	Glucosyl(ß) Sphingo
860489P	L-threo-Sphingosine
860542P	Lactosyl(ß) Sphingos
860952P	Lyso GB3 (synthetic)
860720P	Lyso iGB3 (synthetic)
860721P	Lyso iGB3-d7 (synthetic)
860656P	Lyso SM (d17:1)
860620P	Lyso SM (dihydro) (d18:0)
860950P	Mito-So
860608P	N-02:0 Phytosphingo
860625P	N-02:0 Sphinganine
860609P	N-08:0 Phytosphing
860652P	N-08:0 Sph-1-P (C17)
860626P	N-08:0 Sphinganine
860645P	N-08:0 Sphingo (C17)

Cat. No.	Description
860481P	N-12:0 1-DSPHA
860635P	N-12:0 Sphinganine
860617P	N-16:0 Phytosphingo
860634P	N-16:0 Sphinganine
860610P	N-18:0 Phytosphingo
860627P	N-18:0 Sphinganine
860646P	N-18:0 Sphingo (C17)
860624P	N-18:1 Sphinganine
860925P	N-24:0 (2S-OH) Phytosphingosine
860724P	N-24:0 Phytosphingo
860628P	N-24:0 Sphinganine
860649P	N-24:0 Sphingo (C17)
860629P	N-24:1 Sphinganine
860455P	N-C12-deoxy-SPH
860461P	N-C12-desoxymethylsphinganine
860466P	N-C12-desoxymethylsphingosine
860456P	N-C16-deoxy-SPH
860462P	N-C16-deoxy-SPHA
860467P	N-C16-desoxyMe-SPH
860463P	N-C16-desoxyMe-SPHA
860457P	N-C24:1-deoxy-SPH
860464P	N-C24:1-deoxy-SPHA
860468P	N-C24:1-desoxyMe-SPH
860465P	N-C24:1-desoxyMeSPHA
860618P	N(2R-OH 16:0(d9)) Phytosphingosine
860619P	N(2S-OH 16:0(d9)) Phytosphingosine
860552P	Omega-Biotin S1P
860550P	Omega-Biotin Sphingo
870627P	Photoswitch Sphingosine
860491P	Phytosphing-1-PO4
860499P	Phytosphingosine
860603P	Phytosphingosine Phosphocholine
860604P	Phytosphingosine-N,N-Dimethyl
870792P	PPMP

Cat. No.	Description
860488P	Safingol
860665P	Sphingadiene(4,14)
860667P	Sphingadiene(4,8)
860498P	Sphinganine
860654P	Sphinganine (C17)
860674P	Sphinganine (C20)
860655P	Sphinganine-1-P(C17)
860675P	Sphinganine-1-P(C20)
860536P	Sphinganine-1-PO4

Cat. No.	Description
860641P	Sphingo-1-PO4 (C17)
860494C	Sphingo-1-PO4 (DMA)
860670P	Sphingosine (C14)
860640P	Sphingosine (C17)
860660P	Sphingosine (C20)
860669P	Sphingosine (d16:1)
860663P	Sphingosine (d22:1)
860600P	Sphingosine PCholine
860662P	Sphingosine-1-Phosphate (d20:1)

Cat. No.	Description
860492P	Sphingosine-1-PO4
860615P	Sphingosyl PE
860616P	Sphingosyl PI
860623P	Trimethyl Sphinganine (d18:0)
860643P	Trimethyl Sphingosine (d17:1)
860497P	Trimethylsphingosine

Ceramides

Cat. No.	Description
860502P	02:0 Ceramide
860530P	02:0 Ceramide-1-PO4
860504P	04:0 Ceramide
860506P	06:0 Ceramide
860508P	08:0 Ceramide
860532P	08:0 Ceramide-1-PO4
860510P	10:0 Ceramide
860531P	12:0 Cer-1-PO4
860512P	12:0 Ceramide
860811P	12:0(2R-OH) Cer
860812P	12:0(2S-OH) Ceramide
860514P	14:0 Ceramide
857458M	16:0 aldehyde
860522P	16:0 Cer-1-PO4(dihy)
860516P	16:0 Ceramide
860533P	16:0 Ceramide-1-PO4
868516P	16:0 D31 Ceramide
860815P	16:0(2R-OH) Cer
860816P	16:0(2S-OH) Cer
857459P	16:1 aldehyde
860517P	17:0 Ceramide
860526P	17:0 Ceramide-1-18:1
860817P	17:0(2R-OH) Cer
860818P	17:0(2S-OH) Cer
860518P	18:0 Ceramide
860829P	18:0(2R-OH) Cer
860840P	18:0(2R-OH) GalCer
860842P	18:0(2R-OH) Sulfo GalCer
860830P	18:0(2S-OH) Ceramide
860841P	18:0(2S-OH) GalCer
860843P	18:0(2S-OH) Sulfo GalCer
860519P	18:1 Ceramide
860599C	18:1 Ceramide-1-PO4
860599P	18:1 Ceramide-1-PO4
860827P	18:1(2R-OH) Ceramide
860828P	18:1(2S-OH) Ceramide
860520P	20:0 Ceramide
860819P	20:0(2R-OH) Cer
860820P	20:0(2S-OH) Cer

Cat. No.	Description
860501P	22:0 Ceramide
860821P	22:0(2R-OH) Cer
860822P	22:0(2S-OH) Cer
860523P	24:0 Cer-1-PO4(dihy)
860524P	24:0 Ceramide
860527P	24:0 Ceramide-1-PO4
860823P	24:0(2R-OH) Cer
860824P	24:0(2S-OH) Cer
860525P	24:1 Ceramide
860825P	24:1(2R-OH) Cer
860826P	24:1(2S-OH) Ceramide
860573P	3-Sulfo-C12 GalCer
860572P	3-Sulfo-C17:0 GalCer
860578P	3-Sulfo-C24:0 GalCer
860571P	3-Sulfo-C24:1 GalCer
860574P	3,6-Sulfo-C12 GalCer
860479P	Adamantanyl GalCer
860459P	Adamantanyl GlcCer
860529P	C12-Cer (C17) EP
860671P	C16 Ceramide (d14:1/16:0)
860730P	C16 Galactosyl (a) Dihydroceramide (d18:0/16:0)
860731P	C16 Galactosyl (B) Dihydroceramide (d18:0/16:0)
857401P	C16-Urea-Cer
860692P	C16:0 Ceramide (d18:2(4E,8Z)/16:0)
860646P	C18 Ceramide (d17:1/18:0)
860647P	C18:1 Ceramide (d17:1/18:1(9Z))
860673P	C18:1 Glu(beta) Cer-d5
860644P	C2 Ceramide (d17:1/2:0)
860648P	C20 Ceramide (d17:1/20:0)
860672P	C22 Ceramide (d14:1/22:0)
860649P	C24 Ceramide (d17:1/24:0)
860693P	C24:0 Ceramide (d18:2(4E,8Z)/24:0)
860650P	C24:1 Ceramide (d17:1/24:1(15Z))
860691P	C24:1 Ceramide (d18:2(4E,8Z)/24:1(15Z))

Cat. No.	Description
860871P	C24:1 Mono-sulfo galactosyl (alpha) ceramide (d18:1/24:1)
860704P	C6 Ceramide-1,3-cyclic-phosphate (d18:1/6:0)
860633P	C6 Dihydroceramide (d18:0/6:0)
857400P	C6-Urea-Ceramide
860645P	C8 Ceramide (d17:1/8:0)
860575P	C8-L-threo-LacCer
860850P	CER1 (d18:1/26:0/18:1)
860851P	CER9 (d18:0/26:0/18:1)
860521P	Galact(ß) C16 Cer
860844P	Galact(ß) C18 Cer
860596P	Galact(ß) C18:1 Cer
860546P	Galact(ß) C24:1 Cer
860431P	Galact(α) C16:0 Cer
860432P	Galact(α) C24:1 Cer
860430P	Galact(α) C8:0 Cer
860538P	Galactosyl(ß) C8 Cer
860544P	Galactosyl(ß)C12 CER
860543P	Glucosyl(ß) C12 Cer
860539P	Glucosyl(ß) C16 Cer
860569P	Glucosyl(ß) C17 Cer
860547P	Glucosyl(ß) C18 Cer
860548P	Glucosyl(ß) C18:1Cer
860549P	Glucosyl(ß) C24:1Cer
860540P	Glucosyl(ß) C8 Cer
867000P	KRN7000 (α-GalCer)
860590P	Lactosyl(beta) C181 Cer
860545P	Lactosyl(ß) C12 Cer
860576P	Lactosyl(ß) C16 Cer
860595P	Lactosyl(ß) C17 Cer
860598P	Lactosyl(ß) C18 Cer
860577P	Lactosyl(ß) C24 Cer
860597P	Lactosyl(ß) C241 Cer
860541P	Lactosyl(ß) C8 Cer
860855P	N-((2S,3R)-1,3-dihydroxy-5-((2-oxo-2H-chromen-7-yl)oxy) pentan-2-yl)dodecanamide
860856P	N-((2S,3R)-1,3-dihydroxy-5-((2-oxo-2H-chromen-7-yl)oxy) pentan-2-yl)palmitamide

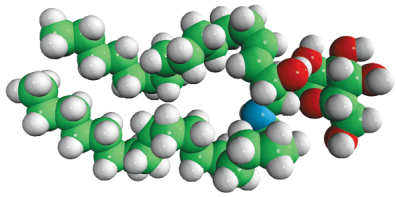
Natural Lipids & Extracts

Bioactive compounds commonly found in plants and metabolism

Optimized for research applications

Cat. No.	Description
141101C	Brain Extract Polar
141101P	Brain Extract Polar
860062C	Brain SM
860062P	Brain SM
860025P	Brain Sphingosine
860052P	Ceramide (Brain)
860051P	Ceramide (Egg)
131303P	Cerebrosides (Brain)
131304P	Cerebrosides (Soy)
250520P	DDM, 85%
840027C	E coli PE
840027P	E coli PE
841199C	*E. coli* CA
841199P	*E. coli* CA
841188C	E. Coli PG
841188P	E. Coli PG
100600C	E.Coli Polar Extract
100600P	E.Coli Polar Extract
100500C	E.Coli Total Extract
100500P	E.Coli Total Extract
241601A	Egg PC (60%)
241601C	Egg PC (60%)
131601C	Egg PC 95%
131601P	Egg PC 95%
840051C	Egg PC 99%
840051P	Egg PC 99%
860061C	Egg SM
860061P	Egg SM
860020P	Egg Sphingosine

Cat. No.	Description
860055P	Ganglioside GD1a
860056P	Ganglioside GD1b
860060P	Ganglioside GD3-Milk
860065P	Ganglioside GM1-Shp
860058P	Ganglioside GM3-Milk
860086P	Ganglioside GQ1b
860059P	Ganglioside GT1b
860053P	Ganglioside-Total
171204C	Heart Extract Polar
171204P	Heart Extract Polar
171201C	Heart Extract Total
840059P	Hydro Egg PC
840058P	Hydro Soy PC
830071P	Lyso Egg PC
860081P	Lyso Egg PE
860063C	Milk SM
860063P	Milk SM
860064P	NGcGM3
840009C	PAF (from HPC)
840009P	PAF (from HPC)
840008P	PAF lyso (from HPC)
341602G	Soy Extract (40%)
541602C	Soy Extract Polar
541602P	Soy Extract Polar
840072P	Soy Lyso PC
850090P	Soy Lyso PI
690050C	Soy Mix I
690050P	Soy Mix I
840074C	Soy PA



Cerebrosides (Brain)

Total Cerebrosides (Brain, Porcine)

The total brain cerebrosides appear as a double spot on thin layer chromatography (chloroform/methanol/water, 65:25:4 v/v). The top spot corresponds to ceresine which contain non-hydroxylated fatty acids, and the bottom spot corresponds to phrenosin which contain hydroxylated fatty acids.

Cat. No.	Description
840074P	Soy PA
840054C	Soy PC
840054P	Soy PC
541601G	SOY PC (20%)
441601G	Soy PC (95%)
840024C	Soy PE
840024P	Soy PE
841148C	Soy PG
841148P	Soy PG
840044C	Soy PI
840044P	Soy PI
870336C	Soy PS
870336P	Soy PS
131305P	Sulfatides (Brain)
190001C	Yeast Extract Polar
190001P	Yeast Extract Polar
190000C	Yeast Extract Total
190000P	Yeast Extract Total

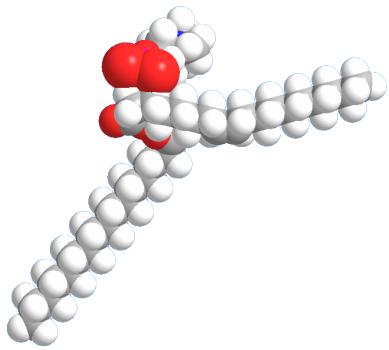
Synthetic Phospholipids

IsoPure: Isomerically Pure Mixed-Acyl Glycerophospholipids

Take your Lipid Research to New Heights

Mixed-acyl glycerophospholipids are among the most abundant lipids in nature. Famously, 1-palmitoyl-2-oleoyl phosphatidylcholine (POPC) is the most abundant phospholipid in most eukaryotic cells and tissues. The molecular structure of POPC follows the textbook consensus that unsaturated fatty acyl chains occupy the sn-2 position of the glycerol backbone while saturated fatty acyl chains are relegated to the sn-1 position. As our analytical technologies advance, this conventional wisdom is being turned inside out with the isomer 1-oleoyl-2-palmitoyl phosphatidylcholine (OPPC) being identified at high abundance in samples ranging from plasma to tissue [1,2,3]. Adding to the complexity, both isomers are present in many instances in ratios ranging from 1:100 to 1:1.

Resolving the puzzle of lipid isomers requires advanced analytical tools in conjunction with structurally defined reference materials. Until recently, commercially available synthetic lipids were also comprised of mixtures, as transacylation occurring in the round-bottom flask always led to 10-20% OPPC in any preparation of POPC. Moreover, the regiopurity of the product was difficult to define. Avanti® recently introduced the IsoPure line wherein innovative synthetic procedures produce mixed-acyl glycerophospholipids with >97% regiopurity. These next-generation standards will be pivotal to isomer-resolved identification of glycerophospholipids in biological samples.



16:0-18:1(n10) PC - IsoPure
1-palmitoyl-2-(8Z-octadecenoyl)-sn-glycero-3-phosphocholine (IsoPure)

IsoPure

Cat. No.	Description
792574C	16:0-18:1 Phosphatidylethanol-IsoPure
792454C	16:0-18:1(n10) PC - IsoPure
792455C	16:0-18:1(n7) PC - IsoPure
792453C	16:0-18:1(n9) PC - IsoPure
792518C	16:0-18:1(n9) PE - IsoPure
792520C	16:0-18:1(n9) PG - IsoPure
792522C	16:0-18:1(n9) PS - IsoPure
792524C	16:0-20:4 PC - IsoPure
792575C	18:1-16:0 Phosphatidylethanol-IsoPure
792457C	18:1(n10)-16:0 PC - IsoPure
792456C	18:1(n7)-16:0 PC - IsoPure
792521C	18:1(n9)- 16:0 PG - IsoPure
792523C	18:1(n9)- 16:0 PS - IsoPure
792458C	18:1(n9)-16:0 PC - IsoPure
792519C	18:1(n9)-16:0 PE - IsoPure
792485C	20:4-16:0 PC - IsoPure
792525C	TopFluor-20:4 PC - IsoPure

Cardiolipins

Cat. No.	Description
710332C	14:0 CA
710332P	14:0 CA
750332C	14:0 CA (Sodium)
750332P	14:0 CA (Sodium)
710333P	16:0 Cardiolipin
710341C	16:0-18:1 Cardiolipin
710339C	16:1 Cardiolipin
710334P	18:0 Cardiolipin
710335C	18:1 CA
710335P	18:1 CA

BMP

Cat. No.	Description
857131P	14:0 BMP (S,R)
857132P	14:0 Hemi BMP (S,R)
857137P	18:1 BDP (S,S)
857136P	18:1 BMP (R,R)
857133C	18:1 BMP (S,R)
857133P	18:1 BMP (S,R)
857135C	18:1 BMP (S,S)
857135P	18:1 BMP (S,S)
857134P	18:1 Hemi BMP (S,R)

Synthetic Phospholipids (continued)

Ether Lipids

Cat. No.	Description
999998P	06:0 Diether PC
999971P	1-C16 Ether MG
999994P	12:0 Diether PC
999988P	13:0 Diether PC
999993P	14:0 Diether PC
999800P	14:0 Diether PG
999992P	16:0 Diether PC
999983C	16:0-18:1 Diether PC
999974P	16:0-18:1 Diether PE
999973P	16:0-18:1 Diether PG
999991P	18:0 Diether PC
999989C	18:1 Diether PC
999989P	18:1 Diether PC
999995P	Edelfosine

PA, LPA & Cyclic LPA

Cat. No.	Description
857119P	06:0 Lyso PA
830841C	06:0 PA
830841P	06:0 PA
830842C	08:0 PA
830842P	08:0 PA
830843C	10:0 PA
830843P	10:0 PA
840635P	12:0 PA
857120P	14:0 Lyso PA
830845P	14:0 PA
857323P	16:0 Cyclic LPA
857123P	16:0 Lyso PA
830855P	16:0 PA
840857P	16:0-18:1 PA
840858C	16:0-18:2 PA
840858P	16:0-18:2 PA
840859C	16:0-20:4 PA
840860C	16:0-22:6 PA
857324P	17:0 Cyclic LPA
857127P	17:0 Lyso PA
830856P	17:0 PA
857128P	18:0 Lyso PA
830865P	18:0 PA

Cat. No.	Description
840861C	18:0-18:1 PA
840861P	18:0-18:1 PA
840862C	18:0-18:2 PA
840862P	18:0-18:2 PA
840863C	18:0-20:4 PA
840864C	18:0-22:6 PA
857328P	18:1 Cyclic LPA
857130C	18:1 Lyso PA
857130P	18:1 Lyso PA
840875C	18:1 PA
840875P	18:1 PA
857138C	18:2 Lyso PA
840885C	18:2 PA
840885P	18:2 PA
857125C	20:4 Lyso PA
840886C	20:4 PA
840887C	22:6 PA
857225P	C16 Cyclic LPA
857223P	C16 LPA
857228P	C18 LPA
857231P	C18:1 Cyclic LPA
857230P	C18:1 LPA
857235P	OMPT(2S)

PC & LPC

Cat. No.	Description
880622C	16:0-02:0 PC
850302C	03:0 PC
850303P	04:0 PC
850304C	05:0 PC
850304P	05:0 PC
855175P	06:0 Lyso PC
850305C	06:0 PC
850305P	06:0 PC
855176P	07:0 Lyso PC
850306C	07:0 PC
850306P	07:0 PC
855275P	08:0 Lyso PC
850315C	08:0 PC
850315P	08:0 PC
855276P	09:0 Lyso PC
850320P	09:0 PC
855375P	10:0 Lyso PC
850325C	10:0 PC
850325P	10:0 PC
855376P	11:0 Lyso PC
850330P	11:0 PC
855475C	12:0 Lyso PC
855475P	12:0 Lyso PC
850335C	12:0 PC

Cat. No.	Description
850335P	12:0 PC
855476C	13:0 Lyso PC
855476P	13:0 Lyso PC
850340C	13:0 PC
850340P	13:0 PC
855575C	14:0 Lyso PC
855575P	14:0 Lyso PC
850345C	14:0 PC
850345P	14:0 PC
850344P	14:0-04:0(biphenyl) PC (TBBPC)
850445C	14:0-16:0 PC
850445P	14:0-16:0 PC
850446C	14:0-18:0 PC
850446P	14:0-18:0 PC
850346C	14:1 PC
850346P	14:1 PC
850347P	14:1 Trans PC
855576P	15:0 Lyso PC
850350C	15:0 PC
850350P	15:0 PC
850333P	16:0 2-PC
855675C	16:0 Lyso PC
855675P	16:0 Lyso PC
850355C	16:0 PC

Cat. No.	Description
850355P	16:0 PC
850454C	16:0-14:0 PC
850454P	16:0-14:0 PC
850456C	16:0-18:0 PC
850456P	16:0-18:0 PC
850457C	16:0-18:1 PC
850457P	16:0-18:1 PC
850458C	16:0-18:2 PC
850458P	16:0-18:2 PC
850459C	16:0-20:4 PC
850461C	16:0-22:6 PC
850358C	16:1 PC (Cis)
850358P	16:1 PC (Cis)
850359C	16:1 Trans PC
850359P	16:1 Trans PC
855676C	17:0 Lyso PC
855676P	17:0 Lyso PC
850360C	17:0 PC
850360P	17:0 PC
855677C	17:1 Lyso PC
855774P	18:0 2-LPC
855775C	18:0 Lyso PC
855775P	18:0 Lyso PC
850365C	18:0 PC

Cat. No.	Description
850365P	18:0 PC
850464C	18:0-14:0 PC
850464P	18:0-14:0 PC
850465P	18:0-16:0 PC
850467C	18:0-18:1 PC
850467P	18:0-18:1 PC
850468C	18:0-18:2 PC
850468P	18:0-18:2 PC
850469C	18:0-20:4 PC
850472C	18:0-22:6 PC
850366C	18:0(9,10-dibromo) PC
850366P	18:0(9,10-dibromo) PC
792486C	18:1 (8-cis) PC
845875C	18:1 Lyso PC
845875P	18:1 Lyso PC
850375C	18:1 PC (cis)
850375P	18:1 PC (cis)
850374C	18:1 PC Delta6 (cis)
850374P	18:1 PC Delta6 (cis)
850376C	18:1 Trans PC
850376P	18:1 Trans PC
850474P	18:1-14:0 PC

Cat. No.	Description
850475C	18:1-16:0 PC
850475P	18:1-16:0 PC
850476C	18:1-18:0 PC
850476P	18:1-18:0 PC
790626C	18:1(11-cis) PC
860321C	18:1(n10)-16:0 PC
850385C	18:2 PC (cis)
850385P	18:2 PC (cis)
850395C	18:3 PC (cis)
855776C	19:0 Lyso PC
855776P	19:0 Lyso PC
850367C	19:0 PC
850367P	19:0 PC
855674P	2-16:0 Lyso PC
855773C	2-18:1 Lyso PC
855777P	20:0 Lyso PC
850368C	20:0 PC
850368P	20:0 PC
850396C	20:1 PC (cis)
850396P	20:1 PC (cis)
850397C	20:4 PC (cis)
850370P	21:0 PC

Cat. No.	Description
855779C	22:0 Lyso PC
855779P	22:0 Lyso PC
850371C	22:0 PC
850371P	22:0 PC
850398C	22:1 PC (cis)
850398P	22:1 PC (cis)
850400C	22:6 PC (cis)
850372C	23:0 PC
850372P	23:0 PC
855800P	24:0 Lyso PC
850373C	24:0 PC
850373P	24:0 PC
850399C	24:1 PC (cis)
850399P	24:1 PC (cis)
855810P	26:0 Lyso PC
850356C	4ME 16:0 PC
850356P	4ME 16:0 PC
850311C	DOCP
850311P	DOCP
850312P	DOCPe

PE & LPE

Cat. No.	Description
850697C	06:0 PE
850697P	06:0 PE
850699P	08:0 PE
850700C	10:0 PE
850700P	10:0 PE
850702P	12:0 PE
850745P	14:0 PE
850704P	15:0 PE
850854P	16:0 Dimethyl PE
850851P	16:0 Monomethyl PE
850705P	16:0 PE
850757C	16:0-18:1 PE
850757P	16:0-18:1 PE

Cat. No.	Description
850756C	16:0-18:2 PE
850759C	16:0-20:4 PE
850801C	16:0-22:6 PE
850706C	16:1 PE
850706P	16:1 PE
850715P	18:0 PE
850758P	18:0-18:1 PE
850802C	18:0-18:2 PE
850804C	18:0-20:4 PE
850806C	18:0-22:6 PE
850852C	18:1 Dimethyl PE
850852P	18:1 Dimethyl PE
860080P	18:1 Lactosyl PE

Cat. No.	Description
846725C	18:1 Lyso PE
846725P	18:1 Lyso PE
850850P	18:1 Monomethyl PE
850725C	18:1 PE
850725P	18:1 PE
850726C	18:1 Trans PE
850726P	18:1 Trans PE
850755C	18:2 PE
850795C	18:3 PE
855725C	2-18:1 Lyso PE
850800C	20:4 PE
850797C	22:6 PE

Synthetic Phospholipids (continued)

PG & LPG

Cat. No.	Description
840433P	08:0 PG
840434C	10:0 PG
840434P	10:0 PG
840435P	12:0 PG
858126C	13:0 Lyso PG
858120P	14:0 Lyso PG
840446P	15:0 PG
858122P	16:0 Lyso PG
840455P	16:0 PG
840457P	16:0-18:1 PG
840497C	16:0-18:2 PG

Cat. No.	Description
840497P	16:0-18:2 PG
840500C	16:0-22:6 PG
830456P	17:0 PG
858127C	17:1 Lyso PG
858124P	18:0 Lyso PG
840503C	18:0-18:1 PG
840503P	18:0-18:1 PG
840504C	18:0-18:2 PG
840504P	18:0-18:2 PG
858125C	18:1 Lyso PG
858125P	18:1 Lyso PG

Cat. No.	Description
840475C	18:1 PG
840475P	18:1 PG
840477P	18:1 Trans PG
840485C	18:2 PG
840485P	18:2 PG
840487C	18:3 PG
840490C	20:4 PG
840492C	22:6 PG
840520P	Lysyl-16:0 PG
840521P	Lysyl-18:1 PG

PI, PIP & LPI

Cat. No.	Description
850176P	06:0 PI(3,4,5)P3
850174P	06:0 PI(3,5)P2
850181P	08:0 PI
850186P	08:0 PI(3,4,5)P3
850183P	08:0 PI(3,4)P2
850184P	08:0 PI(3,5)P2
850187P	08:0 PI(3)P
850185P	08:0 PI(4,5)P2
850182P	08:0 PI(4)P
850101P	13:0 Lyso PI
850102P	16:0 Lyso PI
850141P	16:0 PI
850142P	16:0-18:1 PI
850157P	16:0-18:1 PI(4)P

Cat. No.	Description
850103P	17:1 Lyso PI
850104P	18:0 Lyso PI
850143P	18:0 PI
850144P	18:0-20:4 PI
850188P	18:0-20:4 PI(3,4)P2
850164P	18:0-20:4 PI(3,5)P2
850189P	18:0-20:4 PI(3)P
850165P	18:0-20:4 PI(4,5)P2
850158P	18:0-20:4 PI(4)P
850190P	18:0-20:4 PI(5)P
850166P	18:0-20:4PI(3,4,5)P3
850100P	18:1 Lyso PI
850149P	18:1 PI
850156P	18:1 PI(3,4,5)P3

Cat. No.	Description
850153P	18:1 PI(3,4)P2
850154P	18:1 PI(3,5)P2
850150P	18:1 PI(3)P
850155P	18:1 PI(4,5)P2
850151P	18:1 PI(4)P
850152P	18:1 PI(5)P
850105P	20:4 Lyso PI
850113P	IP3(1,3,4)
850114P	IP3(1,3,5)
850115P	IP3(1,4,5)
850116P	IP4(1,3,4,5)
850173P	rac-16:0 PI(5)P-d5
850172P	rac-16:0PI(3,5)P2-d5

Plasmalogens

Cat. No.	Description
852446C	16:0 dimethylacetal
852448C	18:0 dimethylacetal
852449C	18:1 dimethylacetal
852464P	C16(Plasm)LPC
852465P	C18(Plasm) LPC
852471P	C18(Plasm) LPE
852467C	C18(Plasm)-18:1 PC
852758C	C18(Plasm)-18:1 PE
852758P	C18(Plasm)-18:1 PE
852469C	C18(Plasm)-20:4 PC
852804C	C18(Plasm)-20:4 PE
852472C	C18(Plasm)-22:6 PC
852806C	C18(Plasm)-22:6 PE

PS & LPS

Cat. No.	Description
840030C	06:0 PS
840030P	06:0 PS
840031P	08:0 PS
840036P	10:0 PS
840038P	12:0 PS
858140P	13:0 Lyso PS
840033P	14:0 PS
858142P	16:0 Lyso PS
840037P	16:0 PS
840034P	16:0-18:1 PS
840060C	16:0-18:2 PS
840060P	16:0-18:2 PS
840062C	16:0-22:6 PS
840028P	17:0 PS

Cat. No.	Description
858141C	17:1 Lyso PS
858141P	17:1 Lyso PS
858144P	18:0 Lyso PS
840039P	18:0-18:1 PS
840063C	18:0-18:2 PS
840063P	18:0-18:2 PS
858143C	18:1 Lyso PS
858143P	18:1 Lyso PS
840035C	18:1 PS
840035P	18:1 PS
840040P	18:2 PS
840066C	20:4 PS
840067C	22:6 PS

Sterol Modified Phospholipids

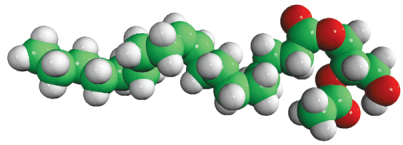
Cat. No.	Description
880346P	DChemsPC
880344P	OChemsPC

Cat. No.	Description
880345P	PChcPC
880343P	PChemsPC

Neutral Lipids

Cat. No.	Description
800100C	18:1-2:0 DG (OAG)
800100O	18:1-2:0 DG (OAG)
900118P	(15R)-PGE2
800800C	08:0 DG
800800O	08:0 DG
840528P	1-Oleoyl-2-palmitoyl-3-(α-D-galactosyl)-sn-glycerol
800810P	10:0 DG
900123P	11-β PGF2α
900416P	12-PAHSA
900416O	12-PAHSA
900417P	12-PAHSA (C13 labeled)
900130E	13(S)HODE
900131E	13(S)HODE Ethanolamide
800814P	14:0 DG
900127E	14(15) EET
900122P	15-keto PGF2α
900108E	15-β PGF2α
900129E	15(S)-HAEA
900128E	15(S)-HETE
900111P	15β-PGF1α
800816C	16:0 DG
800604P	16:0 Ethylene Glycol
900421P	16:0-(12-PAHSA) DG
900420P	16:0-(12-PAHSA) PC
900422P	16:0-(12-PAHSA)-18:1 TG

Cat. No.	Description
800815C	16:0-18:1 DG
800815O	16:0-18:1 DG
840529C	16:0-18:1 DG glucose
900125E	17(S)-HDHA
800817C	18:0-18:2 DG
800818C	18:0-20:4 DG
800819C	18:0-22:6 DG
800811C	18:1 DG
800811O	18:1 DG
800605O	18:1 Ethylene Glycol
900300M	32:6 Fatty Acid
900418P	3R-Hydroxydecanoic acid
900423P	3R-Hydroxydodecanoic acid
900419P	3R-Hydroxymyristic acid
900124E	5-OxoETE
900410C	5-PAHSA
900409C	9-PAHSA
852650P	C18(plasm) MG
900150O	CoQ6
900151P	CoQ8
840522P	MGlc-DAG
900120O	PGB1
900117P	PGE2
900114P	PGE2-EA
900105P	PGF1 alpha
900110P	PGF1β



18:1-2:0 DG

1-oleoyl-2-acetyl-sn-glycerol

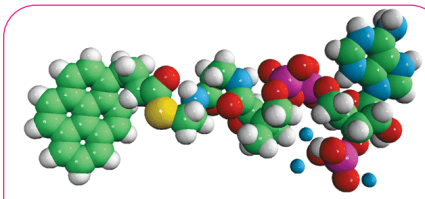
In biochemical signaling, diacylglycerol (DAG) functions as a second messenger signaling lipid, and is a product of the hydrolysis of the phospholipid PIP2 (phosphatidylinositolbisphosphate) by the enzyme phospholipase C (PLC) (a membrane-bound enzyme) that, through the same reaction, produces inositol trisphosphate (IP3). Although inositol trisphosphate (IP3) diffuses into the cytosol, DAG remains within the plasma membrane due to its hydrophobic properties. IP3 stimulates the release of calcium ions from the smooth endoplasmic reticulum, whereas DAG is a physiological activator of protein kinase C (PKC). The production of DAG in the membrane facilitates translocation of PKC from the cytosol to the plasma membrane.

Cat. No.	Description
900121O	PGF2α
900119P	PGF2β
900220O	Polyprenal (13~21)
900100P	Prostaglandin E1

Coenzyme A

Cat. No.	Description
870702P	02:0 Coenzyme A
870703P	03:0 Coenzyme A
870704P	04:0 Coenzyme A
810704P	04:0 Pyrene CoA
870709P	04:1 Coenzyme A
870706P	06:0 Coenzyme A
870708P	08:0 Coenzyme A
870750P	10:0 (3-Oxo) CoA
870710P	10:0 Coenzyme A
860570P	12:0 Biotinyl CoA
870712P	12:0 Coenzyme A
870713P	13:0 Coenzyme A
870714P	14:0 Coenzyme A
870735P	14:0 Ether Coenzyme A
870715P	15:0 Coenzyme A
870716P	16:0 Coenzyme A
870740P	16:0 Ether CoA
810705P	16:0(16-NBD) CoA
870743P	16:1 Coenzyme A
870717P	17:0 Coenzyme A

Cat. No.	Description
870737P	17:1 Coenzyme A
810229P	18-NBD 18:1 Coenzyme A
870718P	18:0 Coenzyme A
870734P	18:0(α-OH)Coenzyme A
870719P	18:1 (n9) Coenzyme A
870741P	18:1 ether Coenzyme A
870731P	18:1(n12) Coenzyme A
870730P	18:1(n7) Coenzyme A
870736P	18:2 Coenzyme A
870732P	18:3(n3) Coenzyme A
870733P	18:3(n6) Coenzyme A
870738P	19:0 Coenzyme A
870720P	20:0 Coenzyme A
870721P	20:4 Coenzyme A
870744P	20:5 Coenzyme A
870739P	21:0 Coenzyme A
870722P	22:0 Coenzyme A
870728P	22:6 Coenzyme A
870723P	23:0 Coenzyme A
870724P	24:0 Coenzyme A



04:0 Pyrene Coenzyme A

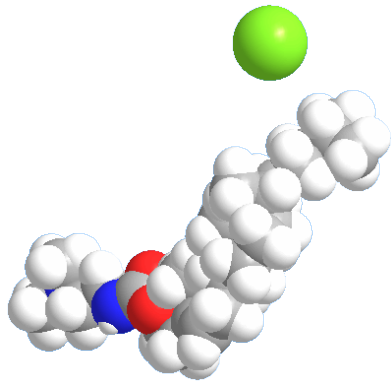
1-pyrenebutanoyl Coenzyme A (ammonium salt)

Cat. No.	Description
870725P	24:1 Coenzyme A
870729P	25:0 Coenzyme A
870726P	26:0 Coenzyme A
870727P	28:0 Coenzyme A
870745P	30:0 Coenzyme A
870742P	4ME 16:0 Coenzyme A
870624P	Azo Coenzyme A
870700P	Coenzyme A (f.acid)
870701P	Coenzyme A (li salt)

Sterols

Cat. No.	Description
700188P	14-Dehydro zymostenol
700073P	14-Demeth Lanosterol
700009P	15-ketocholestane
700008P	15-ketocholestene
700011P	15ß-OH Cholest-ene
700013P	15ß-OH Cholestane
700010P	15α-OH Cholest-ene
700012P	15α-OH Cholestane
700158P	16:0 sitosteryl glc
700168P	16:0 stigmasteryl glucose
700269P	18:1 Chol Ester
700166P	18:1 sitosteryl glucose (Sitoindoside II)
700167P	18:1 stigmasteryl glucose
700156P	20α-OH cholesterol
700058P	22(R)OH-Cholesterol
700057P	22(S)OH-Cholesterol
700178P	24-methylene cholesterol
700071P	24(R)OH-Cholesterol
700037P	24(R/S),25-EpoxyChol
700039P	24(S),25-Epoxy Chol
700061P	24(S)OH-Cholesterol
700131P	24S,27-dihydroxycholesterol
700017P	25-OH Chol-Sulfate
700143P	27-alkyne cholesterol
700084P	27-OH cholestenone
700130P	3beta,24S-dihydroxy-5-cholestenoic acid
700128P	3beta,7alpha,24S-trihydroxy-5-cholestenoic acid
700132P	3beta,7alpha,25-trihydroxy-5-cholestenoic acid
700029P	3beta,7beta-dihydroxy-5-cholestenoic acid
700165P	3ß-Hydroxy-7-oxo-5-cholenic acid
700227P	3β-Hydroxychol-5-en-24-oic acid
700014P	5beta,6beta-epoxycholestanol-d7
700033P	5ß,6ß-Epoxy Chol
700114P	5α-7,24cholestadiene
700140P	6-keto-5α-OH Chol
700030P	6α-OH Cholestanol
700066P	7-dehydrocholesterol

Cat. No.	Description
700138P	7-dehydrodesmosterol
700127P	7-keto-25-OH Chol
700022P	7-keto-27-hydroxycholesterol
700098P	7alpha,24(S)-dihydroxy-4-cholesten-3-one
700096P	7alpha,24(S)-dihydroxycholesterol
700129P	7alpha,24S,27-trihydroxycholesterol
700023P	7alpha,27-dihydroxy-4-cholesten-3-one
700081P	7beta,25-dihydroxycholesterol
700113P	7α-OH cholestenone
700076P	8(14)-dehydrochol
700075P	8(9)-dehydrochol
700146P	a-cholesterol
700088P	Atheronal A
700089P	Atheronal B
700310P	Beta-D-mannosyl farnesyl phosphate, ammonium salt
700175P	Brassicasterol
700122P	campestanol
700126P	campesterol
700016P	Chol Sulfate
700124P	Chol-C10-PC
700123P	chol-PC
700054P	Cholestane-triol
700026P	Cholestenoic Acid I
700027P	Cholestenoic Acid II
700082P	Cholestenoic Acid V
700083P	Cholestenoic Acid VI
700028P	CholestenoicAcid III
700133P	CholestenoicAcid VII
700100P	cholesterol (plant)
700193P	Cholesteryl 6-O-palmitoyl-β-D-galactopyranoside
700001P	DC-Cholesterol·HCl
700174P	Delta 5-avenasterol
700087P	DHEA
700086P	DHEA Sulfate
700177P	Dihydro FF-MAS
700173P	Dihydro T-MAS
700067P	dihydrolanosterol



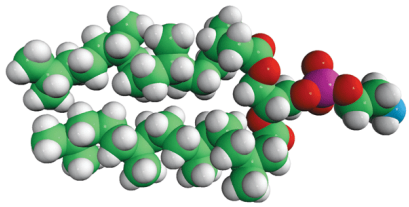
DC-Cholesterol·HCl
3ß-[N-(N',N'-dimethylaminoethane)-carbamoyl]cholesterol hydrochloride

Cat. No.	Description
700025P	Dihydroxy Chol IV
700080P	Dihydroxy Chol V
700085P	diosgenin
700125P	DMHCA
700002P	F7-Cholesterol
700299O	Farnesol
700308P	Farnesyl-L-cysteine
700077P	FF-MAS
700187P	Galactosyl Cholesterol
700161P	Glucosyl sitosterol
700160P	Glucosyl stigmasterol
700159P	Hyocholic acid
700063P	Lanosterol
700099P	Lanosterol-95
700069P	Lathosterol
700192P	ox-18:2 Cholesterol
700142P	pregnenolone
700121P	sitostanol
700095P	Sitosterol
700180P	ß-D-Glucosyl cholesterol
700062P	Stigmasterol
700070P	TriOH Chol Acid
700079P	Zymosterone

Fatty Acid Modified Lipids

Cat. No.	Description
860511C	12:0 Biotin-18:1 PE
860566P	12:0 Biotinyl LPA
860555P	12:0 Biotinyl MG
860557P	12:0 N-Biotinyl Acid
860757P	12:0 N-Biotinyl fatty acid, NHS
880347P	14:0-14:0(COOH) PC
880341P	16:0-16:0(16-F) PC
880342P	16:0-16:0(acrylic)PC
850482P	16:0-18:0(11-12BR)PC
850479C	16:0-18:0(4,5BR) PC
850479P	16:0-18:0(4,5BR) PC
850480C	16:0-18:0(6-7BR) PC
850480P	16:0-18:0(6-7BR) PC
850481C	16:0-18:0(9-10BR) PC
850481P	16:0-18:0(9-10BR) PC
870226P	16:0-Succinoyl PC
860777C	18:0 Dibromo MG

Cat. No.	Description
860556C	18:1-12:0 Biotin DG
860561P	18:1-12:0 Biotin PA
860563C	18:1-12:0 Biotin PC
860563P	18:1-12:0 Biotin PC
860562C	18:1-12:0 Biotin PE
860562P	18:1-12:0 Biotin PE
860581C	18:1-12:0 Biotin PG
860560C	18:1-12:0 Biotin PS
860560P	18:1-12:0 Biotin PS
860565P	18:1-6:0 Biotin PI(3,5)P2
999986C	4ME 16:0 Diether DG
999986O	4ME 16:0 Diether DG
999984C	4ME 16:0 Diether PC
999984P	4ME 16:0 Diether PC
999985P	4ME 16:0 Diether PE
850406P	4ME 16:0 PA
850402C	4ME 16:0 PE



4ME 16:0 PE
1,2-diphytanoyl-sn-glycero-3-phosphoethanolamine

Cat. No.	Description
850402P	4ME 16:0 PE
850404C	4ME 16:0 PG
850404P	4ME 16:0 PG
850408C	4ME 16:0 PS
850408P	4ME 16:0 PS

Headgroup Modified Lipids

Cat. No.	Description
860511C	12:0 Biotin-18:1 PE
860566P	12:0 Biotinyl LPA
860555P	12:0 Biotinyl MG
860557P	12:0 N-Biotinyl Acid
860757P	12:0 N-Biotinyl fatty acid, NHS
880347P	14:0-14:0(COOH) PC
880341P	16:0-16:0(16-F) PC
880342P	16:0-16:0(acrylic)PC
850482P	16:0-18:0(11-12BR)PC
850479C	16:0-18:0(4,5BR) PC
850479P	16:0-18:0(4,5BR) PC
850480C	16:0-18:0(6-7BR) PC
850480P	16:0-18:0(6-7BR) PC

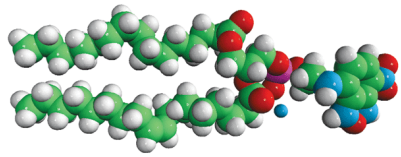
Cat. No.	Description
850481C	16:0-18:0(9-10BR) PC
850481P	16:0-18:0(9-10BR) PC
870226P	16:0-Succinoyl PC
860777C	18:0 Dibromo MG
860556C	18:1-12:0 Biotin DG
860561P	18:1-12:0 Biotin PA
860563C	18:1-12:0 Biotin PC
860563P	18:1-12:0 Biotin PC
860562C	18:1-12:0 Biotin PE
860562P	18:1-12:0 Biotin PE
860581C	18:1-12:0 Biotin PG
860560C	18:1-12:0 Biotin PS
860560P	18:1-12:0 Biotin PS

Cat. No.	Description
860565P	18:1-6:0 Biotin PI(3,5)P2
999986C	4ME 16:0 Diether DG
999986O	4ME 16:0 Diether DG
999984C	4ME 16:0 Diether PC
999984P	4ME 16:0 Diether PC
999985P	4ME 16:0 Diether PE
850406P	4ME 16:0 PA
850402C	4ME 16:0 PE
850402P	4ME 16:0 PE
850404C	4ME 16:0 PG
850404P	4ME 16:0 PG
850408C	4ME 16:0 PS
850408P	4ME 16:0 PS

Fluorescent Lipids

Cat. No.	Description
810307P	(2S,3R,E)-2-Bromo-N-[1,3-dihydroxyoctadec-4-en-13-(dipyrromethene boron difluoride)2-yl]acetamide
810800P	08:0 DGPP
850582P	1-(6-(Dimethylamino)naphthalen-2-yl)dodecan-1-one
850483C	1,2-Dioleoyl-sn-glycero-3-phosphocholine-N-(Cyanine 5)
810590O	10-doxyl nonadecane
810110C	12-NBD Stearate
810110P	12-NBD Stearate
810128P	12:0 Lyso NBD PC
810257P	12DNP/C11TF/O-16:0TG
810157C	14:0 Liss Rhod PE
810157P	14:0 Liss Rhod PE
810143C	14:0 NBD PE
810143P	14:0 NBD PE
810857P	14:0 NPS PC
810122C	14:0-06:0 NBD PC
810122P	14:0-06:0 NBD PC
810151P	14:0-06:0 NBD PE
810161P	14:0-06:0 NBD PG
810172P	14:0-12:0 NBD PA
810123C	14:0-12:0 NBD PC
810123P	14:0-12:0 NBD PC
810152P	14:0-12:0 NBD PE
810162P	14:0-12:0 NBD PG
810528C	16:0 DNP Cap PE
810528P	16:0 DNP Cap PE
810508C	16:0 DNP PE
810508P	16:0 DNP PE
810158C	16:0 Liss Rhod PE
810158P	16:0 Liss Rhod PE
810144C	16:0 NBD PE
810144P	16:0 NBD PE
810196P	16:0 Pyr PE
810334P	16:0 Pyrene PE
810288P	16:0 TopFluor Chol
810246C	16:0 TopFluor TMR Cardiolipin
810281C	16:0-(11-TopFluor)PC
810281P	16:0-(11-TopFluor)PC
810282C	16:0-(11-TopFluor)PE
810282P	16:0-(11-TopFluor)PE

Cat. No.	Description
810283C	16:0-(11-TopFluor)PS
810283P	16:0-(11-TopFluor)PS
810173P	16:0-06:0 NBD PA
810130C	16:0-06:0 NBD PC
810130P	16:0-06:0 NBD PC
810153C	16:0-06:0 NBD PE
810153P	16:0-06:0 NBD PE
810163P	16:0-06:0 NBD PG
810192C	16:0-06:0 NBD PS
810192P	16:0-06:0 NBD PS
810174C	16:0-12:0 NBD PA
810174P	16:0-12:0 NBD PA
810131C	16:0-12:0 NBD PC
810131P	16:0-12:0 NBD PC
810154P	16:0-12:0 NBD PE
810164C	16:0-12:0 NBD PG
810164P	16:0-12:0 NBD PG
810193C	16:0-12:0 NBD PS
810193P	16:0-12:0 NBD PS
810289C	16:0-C4 TF DNP Cap PE
810289P	16:0-C4 TF DNP Cap PE
810103C	16:0-LR/18:1/18:1 TG
810197P	16:0-Pyr PC
810104P	16:0(16-LR) Acid
810105P	16:0(16-NBD) Acid
810345C	18:0 Cy5 PE
810346C	18:0 Cy5.5 PE
810347C	18:0 Cy7 PE
810141P	18:0 NBD PE
810286C	18:1 C4-TF CA
850483C	18:1 Cy5 PC
810335C	18:1 Cy5 PE
810336C	18:1 Cy5.5 PE
810337C	18:1 Cy7 PE
810509C	18:1 Dabsyl PE
810509P	18:1 Dabsyl PE
810330C	18:1 Dansyl PE
810225P	18:1 Dansyl PS
810811P	18:1 DGPP
810150C	18:1 Liss Rhod PE
810150P	18:1 Liss Rhod PE
810127C	18:1 NBD Lyso PE



Egg NBD PE

L-α-Phosphatidylethanolamine-N-(7-nitro-2-1,3-benzoxadiazol-4-yl) (Ammonium Salt) (Egg-Transphosphatidylated, Chicken)

Cat. No.	Description
810145C	18:1 NBD PE
810145P	18:1 NBD PE
810198C	18:1 NBD PS
810159C	18:1 NBD-PEG4 LPE
810332C	18:1 PE CF
810332P	18:1 PE CF
810331P	18:1 Pyrene PE
810382P	18:1 TopFluor® PE
810175P	18:1-06:0 NBD PA
810132C	18:1-06:0 NBD PC
810132P	18:1-06:0 NBD PC
810155C	18:1-06:0 NBD PE
810155P	18:1-06:0 NBD PE
810165C	18:1-06:0 NBD PG
810165P	18:1-06:0 NBD PG
810194C	18:1-06:0 NBD PS
810194P	18:1-06:0 NBD PS
810890P	18:1-06:0 NBD TAP
810176C	18:1-12:0 NBD PA
810176P	18:1-12:0 NBD PA
810133C	18:1-12:0 NBD PC
810133P	18:1-12:0 NBD PC
810156C	18:1-12:0 NBD PE
810156P	18:1-12:0 NBD PE
810166C	18:1-12:0 NBD PG
810166P	18:1-12:0 NBD PG
810195C	18:1-12:0 NBD PS
810195P	18:1-12:0 NBD PS
810298C	18:1-18:1-C11 TF TG
810295P	18:1-18:1-C4 TF TG
810272P	18:1-6:0DNP-C11TF TG

Cat. No.	Description
810297P	18:1-C11 TopFluor DG
810271C	18:1-C11TF-C11TF TG
810271P	18:1-C11TF-C11TF TG
810294P	18:1-C4 TopFluor DG
810290P	18:2 TopFluor Chol
810107E	20:4 anandamide-NBD
810385P	22-((4,4-Difluoro-1,3-dimethyl-5-(4-methoxyphenyl)-4-bora-3a,4a-diaza-s-indacene-2-propionyl) amino)-23-norcholesterol
810299P	25-(C4-TF) 25-OH Cho
810250C	25-NBD Cholesterol
810250P	25-NBD Cholesterol
810142C	4ME 16:0 NBD PE
810142P	4ME 16:0 NBD PE
810106C	arachidonic acid-NBD
810270P	C11 TF Cer-1-PO4
810262P	C11 TF Ceramide
810263P	C11 TF DihydroCer
810266P	C11 TF GalCer
810267P	C11 TF GlcCer
810264P	C11 TF Phytosphing
810265P	C11 TF Sphingomyelin
810258E	C11 TopFluor GM3
810296P	C11 TopFluor MG
810211C	C12-NBD Ceramide
810211P	C12-NBD Ceramide
810221P	C12-NBD Galactosyl Ceramide
810223P	C12-NBD Glu Ceramide
810233P	C12-NBD L-threo-Sphingosine
810227C	C12-NBD Lactosyl Ceramide
810227P	C12-NBD Lactosyl Ceramide

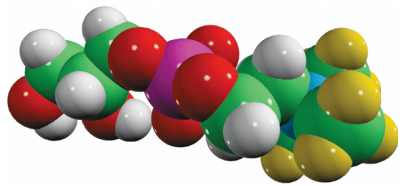
Cat. No.	Description
810215P	C12-NBD Phytosphing
810213P	C12-NBD Sphinganine
810219P	C12NBD Sphingomyelin
810293P	C4 TopFluor MG
810209P	C6-NBD Ceramide
810209X	C6-NBD Ceramide
810220C	C6-NBD Gal Ceramide
810220P	C6-NBD Gal Ceramide
810222C	C6-NBD Glu Ceramide
810222P	C6-NBD Glu Ceramide
810226P	C6-NBD Lac Ceramide
810214P	C6-NBD Phytosphing
810230C	C6-NBD Safingol
810230P	C6-NBD Safingol
810212P	C6-NBD Sphinganine
810218C	C6-NBD Sphingomyelin
810218P	C6-NBD Sphingomyelin
810253P	dehydroergosterol
700253P	DPH-propionic acid
810120C	DSPE PEG2 CF
810120P	DSPE PEG2 CF
810146C	Egg Liss Rhod PE
810146P	Egg Liss Rhod PE
860500C	N-Palmitoyl sphingomyelin-N-(Cyanine 5)
810108O	NBD 2-AG
810314P	NBD Phytosphingosine
810206P	NBD Sphinganine
810206X	NBD Sphinganine
810206P	NBD Sphinganine
810207X	NBD Sphingo-1-PO4
810205P	NBD Sphingosine

Cat. No.	Description
810205X	NBD Sphingosine
810205P	NBD Sphingosine
810252P	NBD-12 Cholesterol
810251P	NBD-6 Cholesterol
810210P	Omega-NBD-18:0 Cer
810203P	Omega-NBD-Lyso SM
810118C	Original Egg NBD PE
810118P	Original Egg NBD PE
810255P	TopFluor Cholesterol
810300P	TopFluor DG
810280P	TopFluor Lyso PA
810284P	TopFluor Lyso PC
810285P	TopFluor Lyso PE
810187P	TopFluor PI
810189P	TopFluor PI(3,4,5)P3
810186P	TopFluor PI(3,5)P2
810184P	TopFluor PI(4,5)P2
810185P	TopFluor PI(4)P
810240C	TopFluor TMR PA
810240P	TopFluor TMR PA
810180C	TopFluor TMR PC
810180P	TopFluor TMR PC
810241C	TopFluor TMR PE
810241P	TopFluor TMR PE
810384P	TopFluor TMR PI(4,5)P2
810242C	TopFluor TMR PS
810242P	TopFluor TMR PS
810307C	TopFluor-SOBRAC
810188P	TopFluor-TMR PI
810259C	TopFluor® Oleic Acid
810301C	TopFluor® sphingosine

Stable Isotopes (Deuterium Labeled Lipids)

Cat. No.	Description
790427P	06:0 PC-d22
790473P	06:0 PC-d35
860475P	1-deoxy-L-threo-sphinganine-d3
860476P	1-desoxymethylsphinganine-d5
700074P	14-Demeth Lan (D6)
860345C	14:0 D54 PC
860345P	14:0 D54 PC
860371P	14:0 D54 PE
860381P	14:0 D54 PG
860400P	14:0 D54 PS
860342P	14:0 PC D09
860348P	14:0 PC D67
860343P	14:0 PC-d13
860341P	14:0 PC-d4
860391P	14:0-14:0 D27 PC
700144P	15:0 Chol(d7) ester
857460M	16:0 aldehyde-d9
860676P	16:0 Ceramide(d7)
700149P	16:0 Chol(d7) ester
860401P	16:0 D62 PS
860352P	16:0 PC D09
860353P	16:0 PC D13
860355C	16:0 PC D62
860355P	16:0 PC D62
860358P	16:0 PC D75
860372P	16:0 PE D62
860382P	16:0 PG d62
860392P	16:0-16:0D31 PC
860320P	16:0-18:1 PC D82
860385P	16:0-18:1 PG D05
860397P	16:0D31 LYSO PC
860453C	16:0D31-18:1 PA
860453P	16:0d31-18:1 PA
860399C	16:0D31-18:1 PC
860399P	16:0D31-18:1 PC
860374C	16:0D31-18:1 PE
860374P	16:0D31-18:1 PE
860384C	16:0D31-18:1 PG
860384P	16:0D31-18:1 PG
860042P	16:0D31-18:1 PI
860403C	16:0D31-18:1 PS
860403P	16:0D31-18:1 PS
857461P	16:1 aldehyde-D5
860677P	18:0 Ceramide(d7)
860365P	18:0 D70 PC
860373P	18:0 D70 PE
860402P	18:0 D70 PS
860361P	18:0 PC D04

Cat. No.	Description
860368P	18:0 PC D83
860363P	18:0 PC-d13
860362P	18:0 PC-d9
860383P	18:0 PG-d70
860394P	18:0-18:0-d35 PC
860398P	18:0D35 Lyso PC
700185M	18:1 Chol(d7) ester
700052P	22(R)OH-Chol(D7)
700051P	22(S)-hydroxycholesterol-d7
700048P	24,25-Epoxy Chol(D6)
860678P	24:0 Ceramide(d7)
860679P	24:1 Ceramide(d7)
700018P	24(R/S)OH-Chol (D7)
700053P	25OH-Cholesterol(D6)
860389P	26:0(D4) LPC
700059P	27OH-Cholesterol(D6)
700042P	4ßOH-Chol (D7)
860410C	5-PAHSA(d9)
700115P	5alpha-7,24-cholestadiene-d6
700047P	5α,6α-EpoxyChol (D7)
700183M	6alphaOH (D7) Chol ester
700045P	6αOH5α CHOL (D7)
700116P	7-dehydrochol (D7)
700046P	7-Ketochol (D7)
700120P	7alpha,24(R/S)-dihydroxycholestenone-d7
700119P	7alpha,24(R/S)-dihydroxycholesterol-d7
700137P	7beta,27-dihydroxycholesterol-d6
700044P	7ßOH-Chol (D7)
700112P	7α-OH cholestenoneD7
700078P	7α,25-DiOH Chol (d6)
700136P	7α,27-diOH Chol-d6
700043P	7αOH-Chol (D7)
860409C	9-PAHSA(d9)
861810E	arachidonic acid-d11
860681P	C15 Ceramide-d7
860638P	C18 GlcCer(d5)
860073W	C18:0 GM3-d5 (synthetic)
700092P	campesterol(d6)
860849P	CER1 (d18:1/26:0/18:1(d9))
860836P	CER11-2'R(d9)
860835P	CER11-2'S(d9)
860848P	CER5-2'R(d9)
860847P	CER5-2'S(d9)
860837P	CER7-2'R,6R(d9)
860838P	CER7-2'S,6R(d9)
860846P	CER8(d9)
860852P	CER9 (d18:0/26:0/18:1(d9))



GPC-d9

L-α-glycerophosphoryl(choline-d9)

GPC rapidly delivers choline to the brain across the blood–brain barrier and is a biosynthetic precursor of the acetylcholine neurotransmitter.

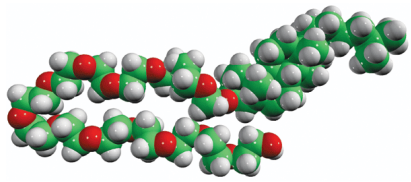
Cat. No.	Description
700055P	Cholestane-triol-d7
700094P	cholestanol(d5)
700151P	cholestenoic acid-d5
700172P	cholesterol-d6
700041P	cholesterol-D7
700040P	desmosterol (D6)
700184M	desmosterol-d6 ester
857463P	DGTS-D9
700091P	dihydrolanosterol-d7
640000P	DMABA-d0 NHS Ester
640010P	DMABA-d10 NHS Ester
640004P	DMABA-d4 NHS Ester
640006P	DMABA-d6 NHS Ester
860637P	Gal Sphingo-d5
640008P	Girard's Reagent-d5
860636P	Glucosyl Sphingo-d5
100403X	GPC-d9
700090P	lanosterol(d6)
700056P	Lathosterol-d7
860639P	Lyso SM(d7)
860336P	MAPCHO-12 (D38)
860495P	Monomethyl Sphingosine (d18:1)
861809O	oleic acid (d9)
700148P	sitosterol-d7
860658P	Sphinganine-D7
860659P	Sphingo-1-PO4(D7)
860657P	Sphingosine-D7
700157P	Stigmasterol-d5
700117P	zymostenol-d7
700072P	zymosterol-d5

Polymers & Polymerizable Lipids

PEG Lipid Conjugate

Cat. No.	Description
880710P	14:0 PEG1000 PE
880150P	14:0 PEG2 PE
880310P	14:0 PEG3000 PE
880410P	14:0 PEG350 PE
880210P	14:0 PEG5 PE
880510P	14:0 PEG550 PE
880610P	14:0 PEG750 PE
880700P	16:0 PEG1 PE
880160P	16:0 PEG2 PE
880300P	16:0 PEG3000 PE
880400P	16:0 PEG350 PE
880200P	16:0 PEG5 PE
880500P	16:0 PEG550 PE
880600P	16:0 PEG750 PE
790146P	16:0-23:2 DIYNE PC
790147P	16:0-23:2 DIYNE PE
880720C	18:0 PEG1 PE
880720P	18:0 PEG1 PE
880120C	18:0 PEG2 PE
880120P	18:0 PEG2 PE
880320C	18:0 PEG3 PE
880320P	18:0 PEG3 PE
880420P	18:0 PEG350 PE
880220P	18:0 PEG5 PE
880520P	18:0 PEG550 PE
880620P	18:0 PEG750 PE
880137C	18:1 PE-PEG2000-benzylguanine
880730C	18:1 PEG1 PE
880730P	18:1 PEG1 PE
880130C	18:1 PEG2 PE
880130P	18:1 PEG2 PE
880330P	18:1 PEG3 PE
880430O	18:1 PEG350 PE
880230C	18:1 PEG5 PE

Cat. No.	Description
880230P	18:1 PEG5 PE
880530C	18:1 PEG550 PE
880530O	18:1 PEG550 PE
880630O	18:1 PEG750 PE
790145P	23:2 DIYNE PE
870016P	23:2 PC DIYNE
880225P	Azido-PEG2000-Carboxy
880133P	Bis-DSPE PEG2000
880180P	C16 PEG2 Ceramide
880280P	C16 PEG5 Ceramide
880680P	C16 PEG750 Ceramide
880170P	C8 PEG2 Ceramide
880270P	C8 PEG5 Ceramide
880670P	C8 PEG750 Ceramide
880001M	Chol-PEG600
880001O	Chol-PEG600
880151P	DMG-PEG 2000
880153C	DOPE PEG(2000)-N-Cy5
880234C	DOPE-PEG(2000) Amine
880233C	DOPE-PEG(2000) Azide ammonium salt
880235C	DOPE-PEG(2000) Carboxylic acid sodium salt
880236C	DOPE-PEG(2000)-HALO-TAG
880231P	DPPE-PEG(2000)Azide
880152P	DSG-PEG 2000
810891C	DSPE PEG(2000)-N-Cy5
880154C	DSPE PEG(2000)-N-Cy5.5
810892C	DSPE PEG(2000)-N-Cy7
880138P	DSPE-PEG(2000) Carboxy NHS
880121P	DSPE-PEG(2000) Succ
880131P	DSPE-PEG(2000) TMS
880228C	DSPE-PEG(2000)-Azide
880228P	DSPE-PEG(2000)-Azide



Chol-PEG600

Cholesterol-(polyethylene glycol-600)
Representative Image

The molecular weight and exact mass are averages based on the polydispersity of PEG.

Cat. No.	Description
880229P	DSPE-PEG(2000)-DBCO
880136P	DSPE-PEG(2000)-square
880128C	DSPE-PEG(2000)Amine
880128P	DSPE-PEG(2000)Amine
880129C	DSPE-PEG(2000)Biotin
880129P	DSPE-PEG(2000)Biotin
880135P	DSPE-PEG(2000)Carbox
880122P	DSPE-PEG(2000)Cyanur
880124P	DSPE-PEG(2000)Folate
880124X	DSPE-PEG(2000)Folate
880126C	DSPE-PEG(2000)Maleim
880126P	DSPE-PEG(2000)Maleim
880127C	DSPE-PEG(2000)PDP
880127P	DSPE-PEG(2000)PDP
880132P	DSPE-PEG(5000) AMINE
880227P	DSPE-PEG(5000) Azide
880226P	DSPE-PEG(5000) DBCO
880123P	DSPE-PEG(5000)Folate
880123X	DSPE-PEG(5000)Folate
880224P	DSPE-PEG(5000)Maleim
880134P	PMA

Mini-Extruder & Accessories

Liposome Production Tools

Mini-Extruder for LUV Preparation

Convenient

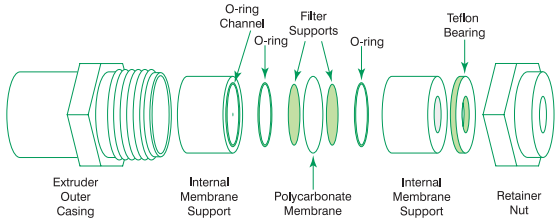
The Mini-Extruder allows you to prepare large unilamellar vesicles (LUVs) by extrusion in an easy, rapid, and efficient manner. Its design allows for quick cleaning of all wetted parts, thus reducing downtime between production of vesicles from different lipid species. Furthermore, you can generate uniform populations of unilamellar liposomes without the use of solvents or detergents, and control vesicle size via polycarbonate membrane selection.

Complete Set

- Mini-Extruder
- Heating block
- 2 O-rings
- 2 gas-tight syringes
- 100 polycarbonate membranes
- 100 filter supports

Durable and Affordable

Constructed of stainless steel and PTFE, the Mini-Extruder is guaranteed for years of trouble-free service – at a fraction of the price of a larger model. All replacement parts are available from one trusted source.



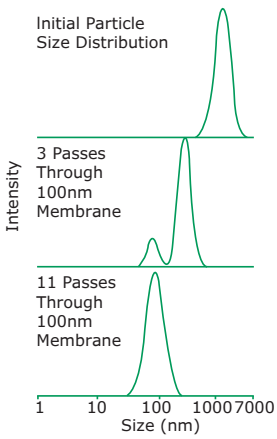
Flexible

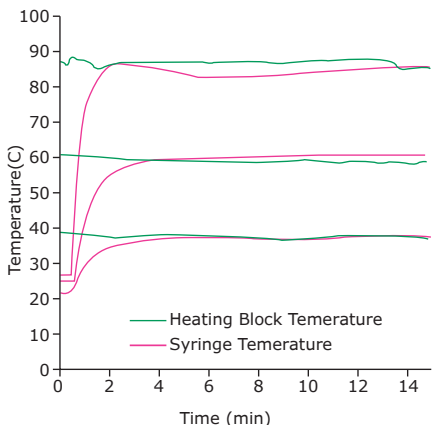
The optional heating block allows extrusion of vesicles at elevated temperatures, which is critical for successful production of vesicles from phospholipids with a phase transition temperature above room temperature. Unilamellar liposomes ranging from 30 nm to 1 µm can be generated when the extruder is assembled with the appropriate polycarbonate membrane. The Mini-Extruder is useful for a wide variety of lipid compositions, and may be fitted with 250 µl and 1 ml syringes.

Reliable

The particle size distribution of unilamellar vesicles prepared by extrusion is a function of the number of passes through the extruder membrane.

Hydrated lipid solutions will initially for large, multi-lamellar v sicles. After the initial pass through a membrane, the particle size distribution will tend Iimit/al-Hs himnrini. After sufficient passes through the membrane, a unimodal, normal distribution is obtained. minimum of eleven pa ses through the extruder membrane is recommended for most lipids.





Placing the heating block assembly on a hot plate achieves rapid temperature control for lipids that have transition temperatures above room temperature.

Get Started at **SigmaAldrich.com/Avanti-Mini-Extruder**

Access technical notes, procedures and protocols to guide your liposome preparation, transfection, and more. You can also learn more about the Mini-Extruder through our short, helpful videos: Introduction, Extrusion Techniques, Assembly, and Care.

Cat. No.	Description
610000	Extruder Set with Holder/ Heating Block

Cat. No.	Description
600350	1000 mL Boston Round
600450	1000 mL Wide Mouth Packer
600200	10mL Pre-Scored Ampule, Clear
600320	120 mL Boston Round
600420	125 mL Wide Mouth Packer
600490	20 mL Amber Vial
600480	20 mL Clear Vial
600330	250 mL Boston Round
600430	250 mL Wide Mouth Packer
600300	30 mL Boston Round
600400	30 mL Wide Mouth Packer
600460	4 mL Clear Vial
600100	5 mL Ampule
600340	500 mL Boston Round

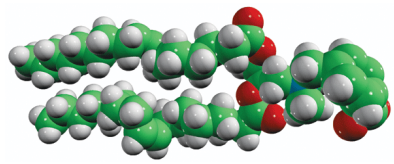
Cat. No.	Description
600440	500 mL Wide Mouth Packer
600510	5mL Amber SCHOTT FIOLAX® Vial with PTFE-lined Screw Cap Closure
600511	5mL Amber SCHOTT(R) FIOLAX(R) Vial with PTFE-lined Screw Cap Closure (3 pack)
600310	60 mL Boston Round
600410	60 mL Wide Mouth Packer
610037	ELISA Frame and Lid (96 well)
610024	Extr. Heating Block
610023	Extr. Set w/o Block
610026	Extruder Casing-SS
610019	Extruder Washer-Tef
610014	Filter Support
610001	Forceps 316SS
610025	Membrane Support-Tef
610020	Mini-Extruder (only)

Cat. No.	Description
610018	O-rings for Extruder
610002	PC Membranes 0.03um
610003	PC Membranes 0.05um
610005	PC Membranes 0.1um
610006	PC Membranes 0.2um
610007	PC Membranes 0.4um
610009	PC Membranes 0.8um
610010	PC Membranes 1.0um
610032	Plunger Asmbly (1mL)
610031	Plunger Asmbly 250µL
600600	PTFE Vial (5mL)
610017	Syringe 1000µL
610015	Syringe 250µL
610034	Syringe Needle
610036	Syringe Needles (3 pack)
610033	Syringe Screw Cap
610035	Teflon Seals

Cationic

Cat. No.	Description
890700P	12:0 EPC (Cl Salt)
890840P	14:0 DAP
890701P	14:0 EPC (Cl Salt)
890860C	14:0 TAP
890860P	14:0 TAP
890717O	14:1 EPC (Tf Salt)
890830P	16:0 DAP
890702C	16:0 EPC (Cl Salt)
890702P	16:0 EPC (Cl Salt)
890870C	16:0 TAP
890870P	16:0 TAP
890705C	16:0-18:1 EPC (Cl)
890705P	16:0-18:1 EPC (Cl)
890820C	18:0 DAP
890820P	18:0 DAP

Cat. No.	Description
890703C	18:0 EPC (Cl Salt)
890703P	18:0 EPC (Cl Salt)
890880C	18:0 TAP
890880P	18:0 TAP
890850C	18:1 DAP
890850O	18:1 DAP
890704C	18:1 EPC (Cl Salt)
890704P	18:1 EPC (Cl Salt)
890890C	18:1 TAP
890890P	18:1 TAP
890895C	18:1 TAP (MS Salt)
890895P	18:1 TAP (MS Salt)
850310C	DOBAQ
850310P	DOBAQ
890899C	DODMA



DOBAQ

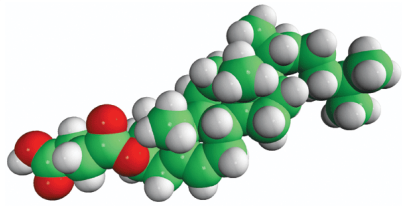
N-(4-carboxybenzyl)-N,N-dimethyl-2,3-bis(oleoyloxy)propan-1-aminium

Cat. No.	Description
890898C	DOTMA
890898P	DOTMA
890893P	GL 67
890000P	MVL5

Detergents

Cat. No.	Description
850555O	(2S,3S)-Phytantriol
850544O	10MAG
850530O	14:1 MG (7.7)
850533P	14:1 MG (8.6)
850531O	15:1 MG (7.8)
850532P	15:1 MG (8.7)
850534O	16:1 MG (7.9)
850535O	16:1 MG (9.7)
850543P	17:1 MG (8.9)
860778C	18:0 Dibromo MG (S-isomer)
810386C	18:1 PE-TopFluor AF488
810387C	18:1 PE-TopFluor AF594
850536O	8.8 MAG
850563P	Bicelle Kit
850500P	CHAPS
850501P	CHAPSO
850524P	CHEMS
850520P	DDM (98%)
850554P	Dendritic Trimaltoside-A6
850042P	Dicetyl phosphate
850521P	DM

Cat. No.	Description
850522P	Facade-EM
850539P	Facade-EPC
850538P	Facade-TEG
850562P	Facade® Detergent Kit
850537P	Facade®-TEM
850526P	Facade®-TFA1
850525P	GDN
640007P	Girard's Reagent
850545P	LDAO
850581P	Lithocholate-based Facial Amphiphile-C4
850514P	M-BTM-C11
850578P	M-XGA-C12
850579P	M-XMA-C6.8
850560P	MAG Detergent Kit
850527P	Mal(11.1)
850528P	Mal(11.2)
850529P	Mal(12.1)
850542P	MEGA-10
850540P	MEGA-8
850541P	MEGA-9



CHEMS
cholesteryl hemisuccinate

Cat. No.	Description
850576P	MGA-C13
850546P	MSDH
850512P	NDT-C11
850510P	NGP
850511P	OGP
850556O	Phytantriol (mixed isomers)
850561P	Popular Detergent Kit
850557P	RGA-C11
850558P	TMG-A13
850553P	VEG-3
850580P	X-NBM-C11

Bile Acids

Cat. No.	Description
700213P	Allocholic acid
700236P	12-ketochenodeoxycholic acid
700239P	12-Ketolithocholic acid
700255P	3-Oxo chenodeoxycholic acid
700254P	3-oxo deoxycholic acid
700237P	3-Oxocholic acid
700189P	3α,6ß,7α,12α-Tetrahydroxy bile acid (THBA)
700228P	3α,6α,7α,12α-Tetrahydroxy bile acid (THBA)
700234P	6,7-Diketolithocholic acid
700216P	7-Ketodeoxycholic acid
700238P	7-Ketolithocholic acid
700196P	Alloisolithocholic Acid
700198P	Chenodeoxycholic Acid
700212P	Cholic acid
700215P	Dehydrocholic Acid
700217P	Dehydrolithocholic acid
700197P	Deoxycholic acid

Cat. No.	Description
700230P	Dioxolithocholic acid
700262P	Glyco-γ-muricholic acid
700266P	Glycochenodeoxycholic acid
700265P	Glycocholic acid
700261P	Glycodehydrocholic acid
700267P	Glycodeoxycholic acid
700264P	Glycohyodeoxycholic acid
700268P	Glycolithocholic acid
700263P	Glycoursodeoxycholic acid
700214P	Hyodeoxycholic acid
700219P	Isodeoxycholic acid
700195P	Isolithocholic acid
700218P	Lithocholic acid
700240P	Nordeoxycholic acid
700243P	Tauro-α-muricholic acid, sodium salt
700244P	Tauro-β-muricholic acid, sodium salt

Cat. No.	Description
700246P	Tauro-γ-muricholic acid, sodium salt
700249P	Taurochenodeoxycholic acid, sodium salt
700251P	Taurocholic acid
700251P	Taurocholic acid, sodium salt
700242P	Taurodehydrocholic acid, sodium salt
700250P	Taurodeoxycholic acid, sodium salt
700248P	Taurohyodeoxycholic acid, sodium salt
700247P	Tauroursodeoxycholic acid, sodium salt
700229P	Ursocholic acid
700199P	Ursodeoxycholic acid
700231P	w-Muricholic acid
700232P	α-Muricholic acid
700233P	β-Muricholic acid

Photoswitchable Lipids

Cat. No.	Description
870622	18:0-azo PC
870622P	18:0-azo PC
870621P	18:0-PhoDAG

Cat. No.	Description
870621P	18:0-PhoDAG
870620P	ACe-1
870626P	Azo Lyso PA

Cat. No.	Description
870623P	Azo SM
870625P	Trans-AzCA4
870650P	Trans-FAAzo-4

Solvent Mixtures

Cat. No.	Description
690014X	Solvent Mixture 20:9:1
690013X	Solvent Mixture 65:35:8

Merck KGaA
Frankfurter Strasse 250
64293 Darmstadt, Germany

Phone +49 6151 72 0
Fax +49 6151 72 2000

To place an order or receive technical assistance

Order/Customer Service: **SigmaAldrich.com/order**
Technical Service: **SigmaAldrich.com/techservice**
Safety-related Information: **SigmaAldrich.com/safetycenter**

SigmaAldrich.com/Avanti

Polar Bear photo provided by: Kyriakos Kaziras

MK_BR6452EN Ver. 1.0 32147 10/2020