

The Lipid Lowdown

SPLASH LipidoMix™ STANDARD

Single-vial Prepared Lipidomic Analytical Standard for Human plasma lipids

Make a splash in your lab and dive right into Lipidomics with our easy to use mixture of deuterium labeled lipids. The SPLASH LipidoMix™ Standard includes all of the major lipid classes at ratios relative to human plasma, allowing one easy internal standard solution to be added to every sample.

This internal standard mixture was developed in collaboration with Kim Ekroos (Zora Biosciences).

Mixture Components:

15:0-18:1(d7) PC	15:0-18:1(d7) PE	15:0-18:1(d7) PS	15:0-18:1(d7) PG	15:0-18:1(d7) PI
15:0-18:1(d7) PA	18:1(d7) LPC	18:1(d7) LPE	18:1(d7) Chol Ester	18:1(d7) MG
15:0-18:1(d7) DG	18:1(d9) SM	Cholesterol (d7)	15:0-18:1(d7)-15:0 TG	

Save time and money! Each vial is adequate for 100 samples.

Avanti provides exact concentrations for quantitative lipidomic analysis, which is applicable to multiple MS approaches and the concentration of each lipid class is optimized for plasma analysis.

Avanti Number 330707

Differential Ion Mobility System Suitability LipidoMIX™ Kit

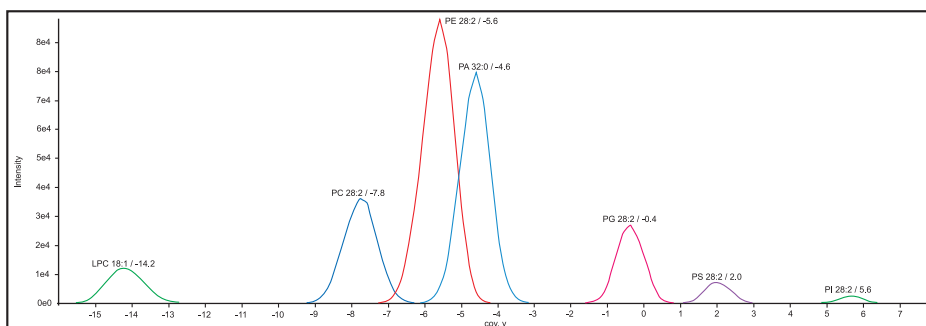
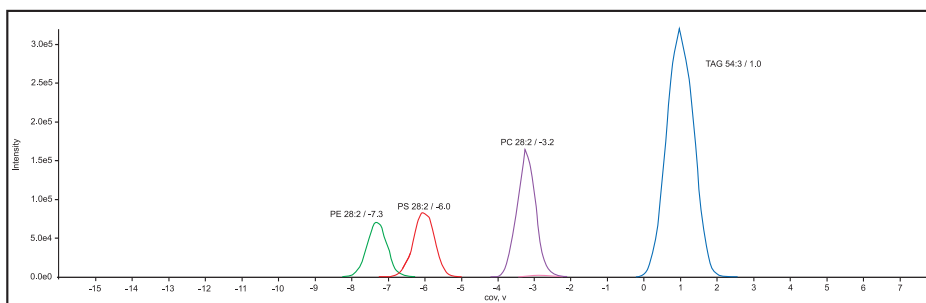
This system provides pre-mixed synthetic lipid standards combined with a natural lipid extract to provide a system suitability standard that allows you to confirm visualization and separation of each lipid class. This standard and protocol was developed in collaboration with Paul Baker and Leo Wang of SCIEX.

The standard is designed to ensure proper instrument set-up and allow for easy method development using ion mobility platforms. The combination of synthetic lipids with the natural lipid extract form a lipid population representative of a typical sample.

Mixture Components:

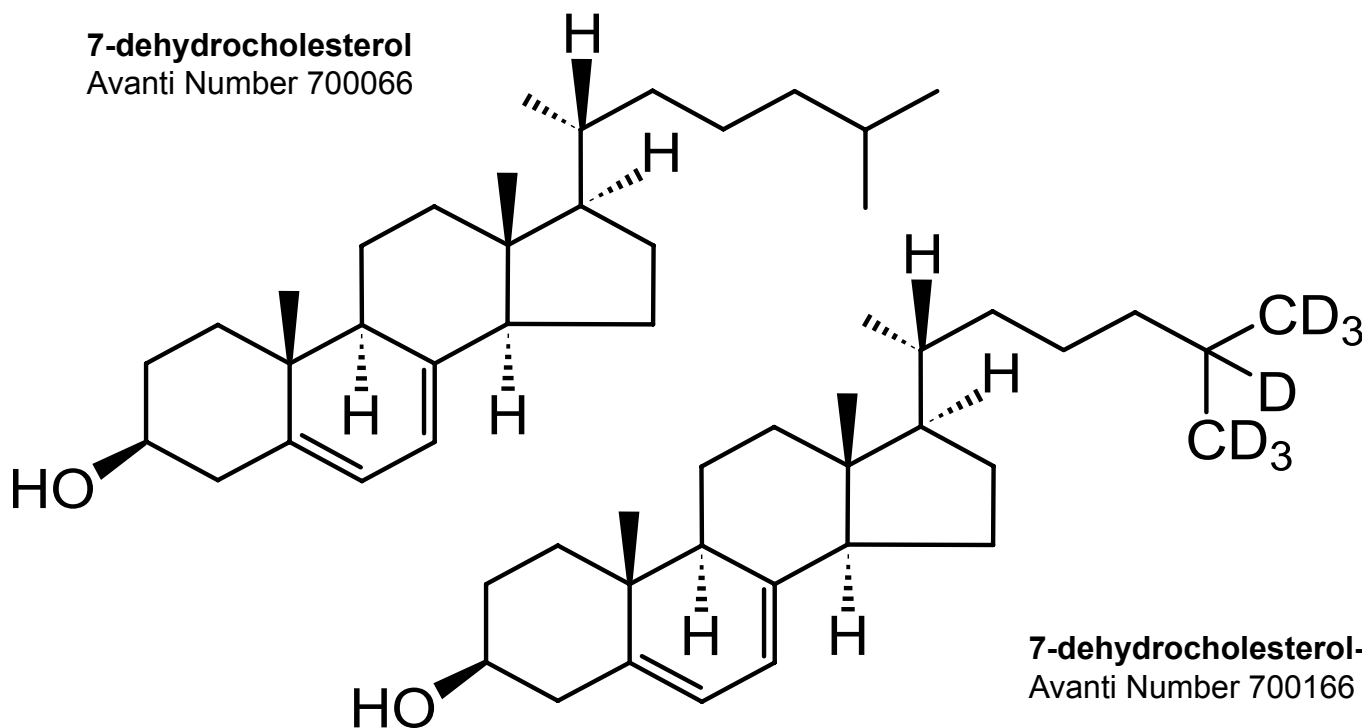
Cholesterol	18:1 TG	18:1 SM
18:1 Ceramide	18:1 Lyso PC	
19:0 Chol Ester	14:1 DG	
14:1 CA	14:1 PC	14:1 PS
14:1 PG	14:1 PE	14:1 PI
14:1 PA	Bovine Heart Extract	

For more details
click here



METABOLIC PREDECESSOR OF CHOLESTEROL

7-dehydrocholesterol
Avanti Number 700066



7-dehydrocholesterol-d7
Avanti Number 700166

7-dehydrocholesterol, an immediate metabolic predecessor of cholesterol, can accumulate in tissues due to some metabolic abnormalities, causing an array of symptoms known as Smith-Lemli-Opitz syndrome. Enrichment of cellular membranes with 7-dehydrocholesterol interferes with normal cell-signaling processes, which involve interaction between rafts and formation of the so-called signaling platforms. In model membranes, cholesterol-based ordered domains usually merge upon contact. According to our experimental data, ordered domains in the model systems where cholesterol is substituted for 7-dehydrocholesterol never merge on the timescale of the experiment, but clusterize into necklace-like aggregates. We attribute such different dynamical behavior to altered properties of the domain boundary. In the framework of thickness mismatch model, we analyzed changes of interaction energy profiles of two approaching domains caused by substitution of cholesterol by 7-dehydrocholesterol. The energy barrier for domain merger is shown to increase notably, with simultaneous appearance of another distinct local energy minimum. Such energy profile is in perfect qualitative agreement with the experimental observations. The observed change of domain dynamics can impair proper interaction between cellular rafts underlying pathologies associated with deviations in cholesterol metabolism.

Staneva, G., D.S. Osipenko, T.R. Galimzyanov, K.V. Pavlov, and S.A. Akimov. (2016). Metabolic precursor of cholesterol causes formation of chained aggregates of liquid-ordered domains. *Langmuir*

[For more details click here](#)

Avanti offers a startling selection of Sterols & Oxysterols including Fluorescent Cholesterol plus Fluorinated, Sulfonated, Phosphorylated & Deuterated Derivatives

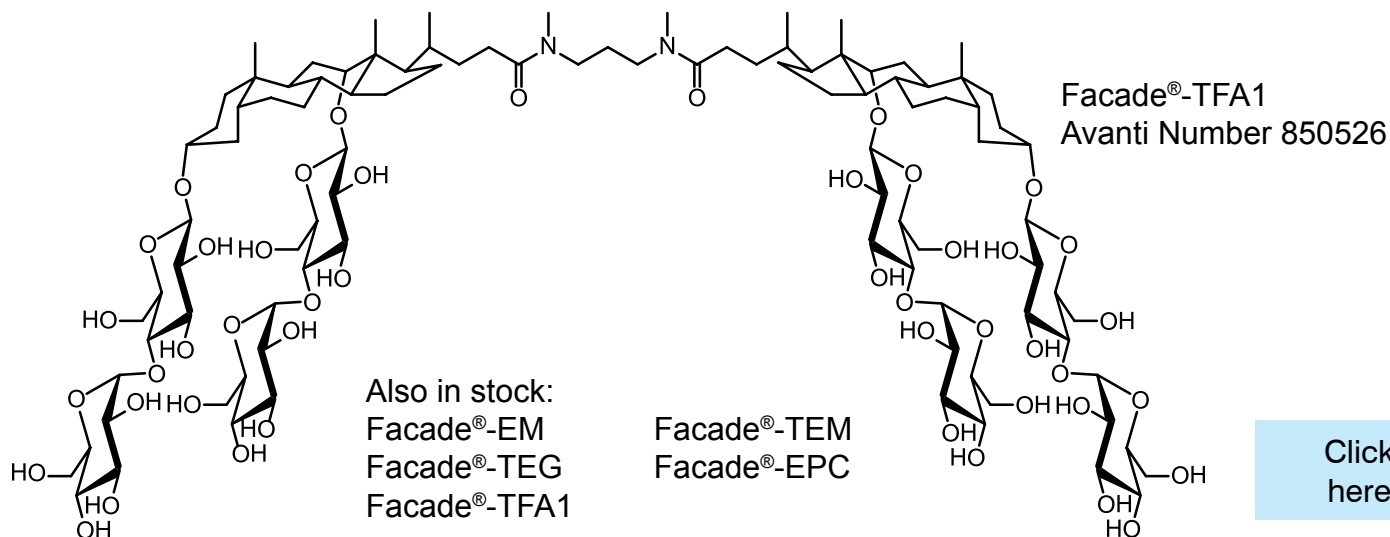
The Lipid Lowdown

New Products

Avanti's scientists are constantly developing exciting new lipids. Keep up to date by visiting this section regularly.

[Click here](#)

NONIONIC DETERGENTS



Please look us up during one of the many Shows at which we will be exhibiting

- Experimental Biology 2016 and ASBMB Annual Meeting
Avanti is Exhibiting - Booth 530
April 2 - 6
San Diego, CA

- AACR Annual Meeting
Avanti is Exhibiting - Booth 1923
April 16 - 20
New Orleans, LA

- Ingredient Marketplace 2016
Avanti is Exhibiting - Booth M46
April 27 - 29
Orlando, FL

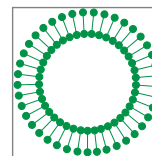
- NIH Spring Biomedical Research Equipment & Supplies Exhibit
Avanti is Exhibiting - Booth 421
May 18 - 19
Bethesda, MD

- Lipid Mediators in Health and Disease II
Avanti is Sponsoring
May 19 - 20
La Jolla, CA

- 64th ASMS Conference on Mass Spectrometry
Avanti is Exhibiting - Booth 427
June 5 - 9
San Antonio, TX



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