Cambridge Isotope Laboratories, Inc.
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Metabolomics Bile Acid Mixtures

New!

For Qualification and Relative Quantification

Bile acids (BAs) are steroid-like compounds that act as a detergent in the breakdown of fats. This family of compounds comprises primary BAs (synthesized in the liver) and secondary BAs (produced in the gut via primary BA modification). These are essential regulatory compounds that are involved in various metabolic processes (e.g., cholesterol and lipid metabolism) and signaling interactions (e.g., in glucose and energy homeostasis). Investigations into their synthesis/metabolism, disease linkage, and biomarker potential are examples of the studied explorations.

To aid further research and development efforts in this space, **Cambridge Isotope Laboratories, Inc. (CIL) is pleased to offer stable isotope-labeled and unlabeled BA mixes**. These formulations are dried down, with the unconjugated BAs in one vial and the conjugated BAs in a second (see table for mix compositions). The mixes can be used in untargeted and targeted LC-MS methods for a variety of purposes (from quality control to relative quantification). Please inquire for pricing.

Catalog No.	Description
MSK-BA1-1	Bile Acid Standard 1 Mix – Unconjugated
MSK-BA1-US-1	Bile Acid Standard 1 Mix – Unconjugated (unlabeled)
MSK-BA2-1	Bile Acid Standard 2 Mix – Conjugated
MSK-BA2-US-1	Bile Acid Standard 2 Mix – Conjugated (unlabeled)

Table. Composition of stable isotope-labeled BA mixtures. Reconstituting each vial in 1 mL of solvent (e.g., 50% methanol) will provide an equimolar concentration of ~100 µM. Note that the unlabeled BA mix compositions are equivalent.

Description	Abbrev.	Type	Approximate Quantity (µg)	Vial
Chenodeoxycholic acid (2,2,4,4-D_4, 98%)	CDCA	Unconjugated (primary)	40	1
Cholic acid (2,2,4,4-D_4, 98%)	CA	Unconjugated (primary)	41	1
Deoxycholic acid (2,2,4,4-D_4, 98%)	DCA	Unconjugated (secondary)	40	1
Lithocholic acid (2,2,4,4-D_4, 98%)	LCA	Unconjugated (secondary)	38	1
β-Muricholic acid (2,2,3,4,4-D_5, 99%)	β-MCA	Unconjugated (primary)	41	1
Ursodeoxycholic acid (2,2,4,4-D_4, 98%) CP 95%	UDCA	Unconjugated (secondary)	40	1
Glycochenodeoxycholic acid (2,2,4,4-D_4, 98%) CP 97%	GCDCA	Conjugated (primary)	45	2
Glycocholic acid (2,2,4,4-D_4, 98%) CP 96% (contains ~4% water)	GCA	Conjugated (primary)	47	2
Glycodeoxycholic acid (2,2,4,4-D_4, 98%)	GDCA	Conjugated (secondary)	45	2
Glycolithocholic acid (2,2,4,4-D_4, 98%)	GLCA	Conjugated (secondary)	44	2
Glycoursodeoxycholic acid (2,2,4,4-D_4, 98%) CP 97%	GUDCA	Conjugated (secondary)	45	2
Taurochenodeoxycholic acid, sodium salt (2,2,4,4-D_4, 98%) CP 97%	TCDCA	Conjugated (primary)	53	2
Taurocholic acid, sodium salt (2,2,4,4-D_4, 98%)	TCA	Conjugated (primary)	54	2
Taurodeoxycholic acid, sodium salt (2,2,4,4-D_4, 98%)	TDCA	Conjugated (secondary)	53	2
Taurolithocholic acid, sodium salt (2,2,4,4-D_4, 98%)	TLCA	Conjugated (secondary)	51	2
Tauroursodeoxycholic acid, sodium salt (2,2,4,4-D_4, 98%)	TUDCA	Conjugated (secondary)	53	2

Chemical purity (CP) is 98% or greater, unless otherwise indicated. For research use only. Not for use in diagnostic procedures.

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