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DATASHEET

Ursodeoxycholic acid

Product overview

Name	Ursodeoxycholic acid
Cat No	HB4645
Purity	>95%
Description	Endogenous hydrophilic bile acid. Antioxidant.

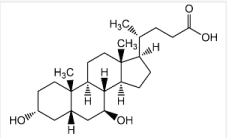
Biological Data

Biological description	Endogenous hydrophilic bile acid. Antioxidant. Cytoprotective against oxidative stress and cell death. Hepatoprotective at cellular and molecular level, including stabilization of membranes. Protects hepatocytes against bile acid-induced apoptosis. Antiapoptotic and antinecrotic. Targets the mitochondrial function and integrity, reduction of endoplasmatic stress and interactions with survival signals in cAMP, Akt, NF-kappaB, MAPK and PI3K signaling pathways. Modulator and finetuner of the p53-Mdm-2 complex. Chemopreventive against colorectal cancer by countering the tumor-promoting effects of secondary bile acids. Shows also effects on epidermal growth factor receptor (EGFR) signaling and COX-2 expression. Immunomodulator and anti-inflammatory compound. Modifies TLR4 and TLR9 signaling pathways and downregulates the production of proinflammatory tumor necrosis factor-alpha (TNF-alpha). Pregnane X receptor agonist. Neuroprotective. Inhibits neuronal apoptosis. Glucocorticoid Receptor (GR) agonist. Anticholestatic agent. Used to reduce cholesterol absorption and for cholesterol gallstone dissolution. Used to treat primary biliary cirrhosis (PBC). Interferes with the progression of non-alcoholic fatty liver disease (NAFLD)/NASH. Reduces CXCR3 expression. TIMP-1 inducer. ADAM17 inhibitor.

Solubility & Handling

Storage instructions	+4°C
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Molecular Weight	392.58
Chemical structure	
Molecular Formula	$C_{24}H_{40}O_4$
CAS Number	128-13-2
PubChem identifier	0
SMILES	C[C@H](CCC(O)=O)[C@H]1CC[C@H]2[C@@H]3[C@@H](O)C[C@@H]4C[C@H](O)CC[C@]4(C)[C@H]3CC[C@]12C
InChiKey	RUDATBOHQWOJDD-UZVSRGJWSA-N
Appearance	White to off-white powder