

SULT2A1 Protein, Human (His)

Cat. No.:	HY-P71343
Synonyms:	Bile Salt Sulfotransferase; Dehydroepiandrosterone Sulfotransferase; DHEA-ST; Hydroxysteroid Sulfotransferase; HST; ST2; ST2A3; Sulfotransferase 2A1; ST2A1; SULT2A1; HST; STD
Species:	Human
Source:	E. coli
Accession:	Q06520 (S2-E285)
Gene ID:	6822
Molecular Weight:	34-38 kDa

PROPERTIES

AA Sequence	<pre> S D D F L W F E G I A F P T M G F R S E T L R K V R D E F V I R D E D V I I L T Y P K S G T N W L A E I L C L M H S K G D A K W I Q S V P I W E R S P W V E S E I G Y T A L S E T E S P R L F S S H L P I Q L F P K S F F S S K A K V I Y L M R N P R D V L V S G Y F F W K N M K F I K K P K S W E E Y F E W F C Q G T V L Y G S W F D H I H G W M P M R E E K N F L L L S Y E E L K Q D T G R T I E K I C Q F L G K T L E P E E L N L I L K N S S F Q S M K E N K M S N Y S L L S V D Y V V D K A Q L L R K G V S G D W K N H F T V A Q A E D F D K L F Q E K M A D L P R E L F P W E </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM Tris-HCl, 100 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	SULT2A1 protein, a sulfotransferase utilizing 3'-phospho-5'-adenylyl sulfate (PAPS) as its sulfonate donor, serves as a crucial mediator in the sulfonation of steroids and bile acids within the liver and adrenal glands. Demonstrating versatile enzymatic activity, SULT2A1 facilitates the sulfation of an extensive array of steroids and sterols, including pregnenolone,
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androsterone, DHEA, bile acids, cholesterol, and numerous xenobiotics featuring alcohol and phenol functional groups. This sulfonation process enhances the water solubility of these compounds, facilitating their renal excretion; however, it also has the potential to lead to bioactivation, forming active metabolites. SULT2A1's multifaceted roles extend to maintaining steroid and lipid homeostasis, playing a pivotal role in bile acid metabolism, and catalyzing the metabolic activation of potent carcinogenic polycyclic arylmethanols. The diverse substrate specificity of SULT2A1 underscores its significance in regulating essential physiological processes and its potential involvement in the metabolic activation of compounds with carcinogenic properties.

Caution: Product has not been fully validated for medical applications. For research use only.

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