

SULT2B1 Protein, Human (364a.a, His)

Cat. No.:	HY-P76666
Synonyms:	ST2B1; Sulfotransferase 2B1; Alcohol Sulfotransferase; HSST2
Species:	Human
Source:	E. coli
Accession:	O00204-1 (D2-S365)
Gene ID:	6820
Molecular Weight:	Approximately 44 kDa

PROPERTIES

AA Sequence	<p>D G P A E P Q I P G L W D T Y E D D I S E I S Q K L P G E Y F R Y K G V P F P V</p> <p>G L Y S L E S I S L A E N T Q D V R D D D I F I I T Y P K S G T T W M I E I I C</p> <p>L I L K E G D P S W I R S V P I W E R A P W C E T I V G A F S L P D Q Y S P R L</p> <p>M S S H L P I Q I F T K A F F S S K A K V I Y M G R N P R D V V V S L Y H Y S K</p> <p>I A G Q L K D P G T P D Q F L R D F L K G E V Q F G S W F D H I K G W L R M K G</p> <p>K D N F L F I T Y E E L Q Q D L Q G S V E R I C G F L G R P L G K E A L G S V V</p> <p>A H S T F S A M K A N T M S N Y T L L P P S L L D H R R G A F L R K G V C G D W</p> <p>K N H F T V A Q S E A F D R A Y R K Q M R G M P T F P W D E D P E E D G S P D P</p> <p>E P S P E P E P K P S L E P N T S L E R E P R P N S S P S P S P G Q A S E T P H</p> <p>P R P S</p>
Biological Activity	Measured by its ability to transfer sulfate from PAPS to pregnenolone. The specific activity is 15.242 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 0.1M NaCl, 10% Glycerol, pH 8.0 or 50 mM Tris-HCL, 300 mM NaCl, pH 7.4, 10% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

SULT2B1 protein, a sulfotransferase utilizing 3'-phospho-5'-adenylyl sulfate (PAPS) as its sulfonate donor, holds a pivotal role in catalyzing sulfate conjugation, with a primary responsibility for sulfating cholesterol. Additionally, SULT2B1 demonstrates significant activity in sulfating steroids, particularly the 3beta-hydroxyl groups of molecules such as pregnenolone and dehydroepiandrosterone (DHEA). While it exhibits a preferential sulfonation of cholesterol, it also displays substantial activity with pregnenolone and DHEA. Beyond its enzymatic functions, SULT2B1 plays a crucial role in epidermal cholesterol metabolism, contributing to the regulation of epidermal proliferation and differentiation. Notably, it sulfonates pregnenolone but not cholesterol, underscoring its substrate selectivity and emphasizing its multifaceted involvement in the intricate processes governing cholesterol homeostasis and steroid metabolism.

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

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