Recombinant ST2A1 protein (His tag)

Catalog Number	542564
Synonyms	ST2A1; Bile salt sulfotransferase; Dehydroepiandrosterone sulfotransferase; DHEA-ST; DHEA-ST8; Hydroxysteroid Sulfotransferase; HST; ST2; SULT2A3
Species	Human
Expression System	E. coli
Accession	Q06520
Molecular Weight	Predictes a molecular mass of 35.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	1-285
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-285 aa (Q06520) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Sulfotransferase 2A1 (ST2A1) Fragment (residues 1-285) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment, encompassing the full-length functional domain, retains the enzyme's ability to catalyze the sulfonation of steroids, bile acids, and xenobiotics using 3'-phospho-5'-adenylyl sulfate (PAPS), making it an ideal tool for investigating steroid metabolism, bile acid regulation, and xenobiotic processing. Sulfotransferase 2A1 (SULT2A1) is a cytosolic enzyme in humans that plays a critical role in maintaining steroid and lipid homeostasis by sulfonating a wide range of endogenous and exogenous compounds. Using PAPS as a sulfonate donor, it catalyzes the sulfonation of steroids (e.g., pregnenolone, androsterone, dehydroepiandrosterone), bile acids, cholesterol, and xenobiotics containing alcohol or phenol groups. This sulfonation enhances water solubility, facilitating renal excretion, but can also activate certain metabolites, such as carcinogenic polycyclic arylmethanols. SULT2A1 is predominantly expressed in the liver and adrenal glands, where it contributes significantly to bile acid metabolism and overall metabolic regulation, underscoring its importance in detoxification and steroid hormone processing.