

Human SULT1A1 / STP1 Protein (His Tag)

Catalog Number: 11658-H07E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

HAST1/HAST2; P-PST; PST; ST1A1; ST1A3; STP; STP1; TSPST1; AI266890; PST; ST1A1; Stp; Stp1

Protein Construction:

A DNA sequence encoding the human SULT1A1 (P50225-1) (Glu 2-Leu 295) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human SULT1A1 consisting of 301 amino acids and has a calculated molecular mass of 35 kDa. It migrates as an approximately 32 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 150mM NaCl, 10% glycerol, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

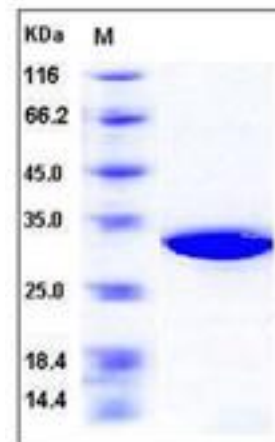
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Sulfate conjugation catalyzed by cytosolic sulfotransferase (SULT) enzymes. The SULTs are Phase II drug-metabolizing enzymes that catalyze the addition of a sulfuryl moiety to both endogenous compounds, including steroids and neurotransmitters, and certain xenobiotics, including N-hydroxy-2-acetylaminofluorene and phenolic compounds, like alpha-naphthol. SULTs may be involved in the individual genetic disposition, species differences, and organotropisms for toxicological effects of chemicals. Particularly SULT1A1 (Sulfotransferase family, cytosolic, 1A, phenol-preferring, member 1), a member of the sulfotransferase 1 subfamily, which is a major pathway for drug metabolism in humans. Humans have at least 10 functional SULT genes. There has been an explosion in information on sulfotransferase polymorphisms and their functional consequences. An Arg213His polymorphism in SULT1A1 has a strong influence on the level of enzyme protein and activity in platelets, which have been widely used for phenotyping. Statistically significant associations were observed between the SULT1A1 genotype (Arg213His) and age, obesity and certain neoplasias (mammary, pulmonary, esophageal and urothelial cancer). Furthermore, the polymorphism of the SULT1A1 may be closely associated with breast cancer.

References

1. Coughtrie MW. 2002. Sulfation through the looking glass--recent advances in sulfotransferase research for the curious. *Pharmacogenomics J.* 2(5): 297-308.
2. Klaassen CD, et al. (1998) Regulation of sulfotransferase mRNA expression in male and female rats of various ages. *Chem Biol Interact.* 109(1-3): 299-313.
3. Glatt H. (2000) Sulfotransferases in the bioactivation of xenobiotics. *Chem Biol Interact.* 129(1-2): 141-70.

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