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SULT1A1 Blocking Peptide (Center)

Synthetic peptide
Catalog # BP21514c

Specification

SULT1A1 Blocking Peptide (Center) - Product Information

Primary Accession P50225

SULT1A1 Blocking Peptide (Center) - Additional Information

Gene ID 6817

Other Names
Sulfotransferase 1A1, ST1A1, Aryl sulfotransferase 1, HAST1/HAST2, Phenol sulfotransferase 1, Phenol-sulfating phenol sulfotransferase 1, P-PST 1, ST1A3, Thermostable phenol sulfotransferase, Ts-PST, SULT1A1, STP, STP1

Target/Specificity
The synthetic peptide sequence is selected from aa 90-103 of HUMAN SULT1A1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SULT1A1 Blocking Peptide (Center) - Protein Information

Name SULT1A1

Synonyms STP, STP1

Function
Sulfotransferase that utilizes 3'-phospho-5'-adenylyl sulfate (PAPS) as sulfonate donor to catalyze the sulfate conjugation of a wide variety of acceptor molecules bearing a hydroxyl or an amine group. Sulfonation increases the water solubility of most compounds, and therefore their renal excretion, but it can also result in bioactivation to form active metabolites. Displays broad substrate specificity for small phenolic compounds. Plays an important role in the sulfonation of endogenous molecules such as steroid hormones (PubMed:12471039, PubMed:16221673, PubMed:21723874, PubMed:22069470, PubMed:7834621). Mediates the

sulfate conjugation of a variety of xenobiotics, including the drugs acetaminophen and minoxidil (By similarity). Mediates also the metabolic activation of carcinogenic N- hydroxyarylamines leading to highly reactive intermediates capable of forming DNA adducts, potentially resulting in mutagenesis (PubMed:7834621). May play a role in gut microbiota-host metabolic interaction. O-sulfonates 4-ethylphenol (4-EP), a dietary tyrosine- derived metabolite produced by gut bacteria. The product 4-EPS crosses the blood-brain barrier and may negatively regulate oligodendrocyte maturation and myelination, affecting the functional connectivity of different brain regions associated with the limbic system (PubMed:35165440). Catalyzes the sulfate conjugation of dopamine (PubMed:8093002). Catalyzes the sulfation of T4 (L-thyroxine/3,5,3',5'- tetraiodothyronine), T3 (3,5,3'-triiodothyronine), rT3 (3,3',5'-triiodothyronine) and 3,3'-T2 (3,3'-diiodothyronine), with a substrate preference of 3,3'-T2 > rT3 > T3 > T4 (PubMed:10199779).

Cellular Location
Cytoplasm.

Tissue Location
Liver, lung, adrenal, brain, platelets and skin.

SULT1A1 Blocking Peptide (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

SULT1A1 Blocking Peptide (Center) - Images

SULT1A1 Blocking Peptide (Center) - Background

Sulfotransferase that utilizes 3'-phospho-5'-adenylyl sulfate (PAPS) as sulfonate donor to catalyze the sulfate conjugation of catecholamines, phenolic drugs and neurotransmitters. Has also estrogen sulfotransferase activity. responsible for the sulfonation and activation of minoxidil. Is Mediates the metabolic activation of carcinogenic N- hydroxyarylamines to DNA binding products and could so participate as modulating factor of cancer risk.

SULT1A1 Blocking Peptide (Center) - References

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Yamazoe Y.,et al.Chem. Biol. Interact. 92:107-117(1994).
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