

**SULT1A1 Blocking Peptide (Center)**  
**Synthetic peptide**  
**Catalog # BP21514c****Specification**

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**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 groupe. 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 and 3,3'-diiodothyronin (PubMed:<a href="http://www.uniprot.org/citations/16221673" target="\_blank">16221673</a>, PubMed:<a href="http://www.uniprot.org/citations/12471039" target="\_blank">12471039</a>, PubMed:<a href="http://www.uniprot.org/citations/22069470" target="\_blank">22069470</a>, PubMed:<a href="http://www.uniprot.org/citations/21723874" target="\_blank">21723874</a>, PubMed:<a href="http://www.uniprot.org/citations/10199779" target="\_blank">10199779</a>, PubMed:<a

[7834621](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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.

**Cellular Location**

Cytoplasm {ECO:0000250|UniProtKB:P17988}.

**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**

Zhu X.,et al.Biochem. Biophys. Res. Commun. 195:120-127(1993).  
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Wilborn T.W.,et al.Mol. Pharmacol. 43:70-77(1993).  
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