

SULT1A1 Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21048a**Specification**

SULT1A1 Antibody (C-term) - Product Information

Application	WB, FC,E
Primary Accession	P50225
Other Accession	P50226
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

SULT1A1 Antibody (C-term) - 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

This SULT1A1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 246-279 amino acids of human SULT1A1.

Dilution

WB~~1:1000

FC~~1:25

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SULT1A1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SULT1A1 Antibody (C-term) - 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

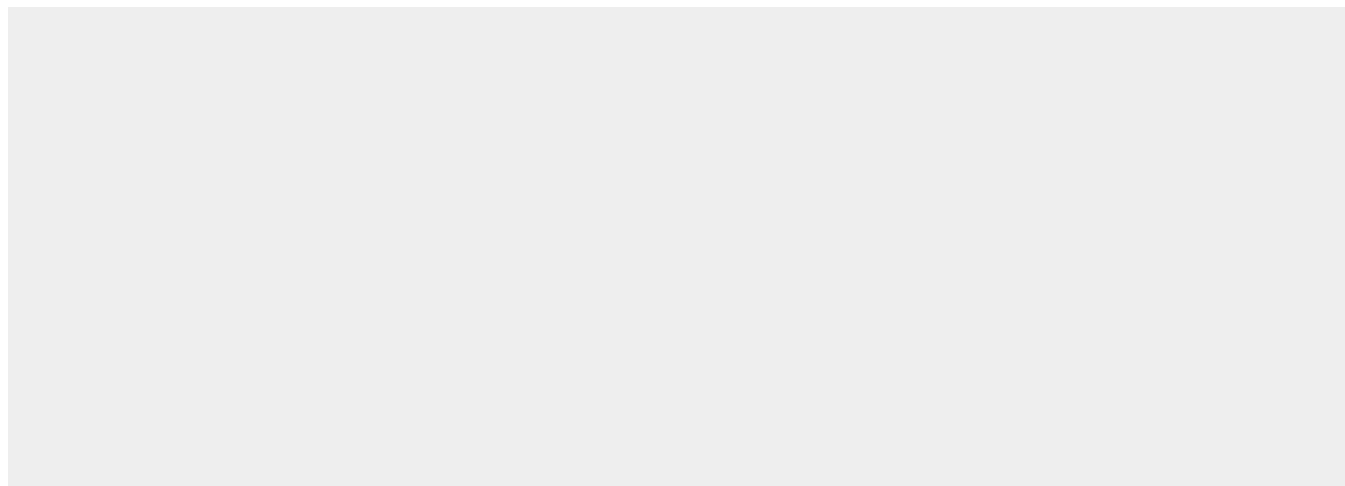
Liver, lung, adrenal, brain, platelets and skin.

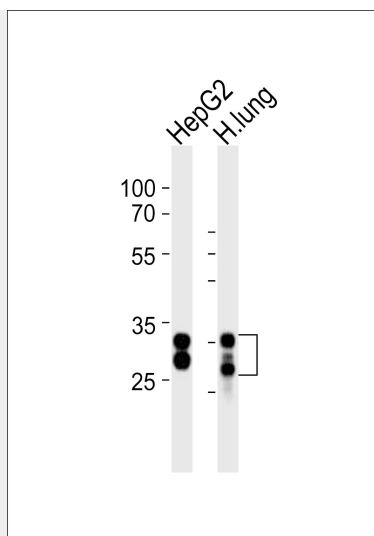
SULT1A1 Antibody (C-term) - Protocols

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

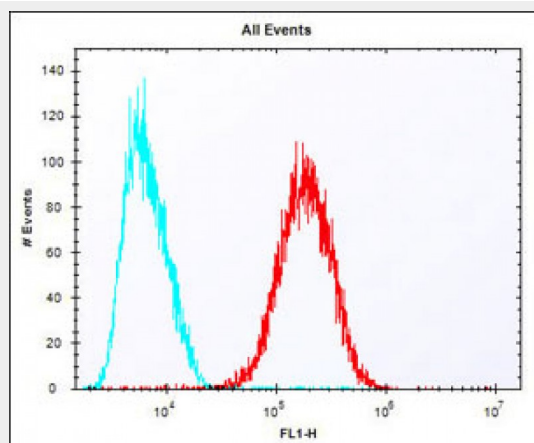
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SULT1A1 Antibody (C-term) - Images





Western blot analysis of lysates from HepG2 cell line and human lung tissue (from left to right), using SULT1A1 Antibody (C-term)(Cat. #AP21048a). AP21048a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



Overlay histogram showing HepG2 cells stained with AP21048a (red line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP21048a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >10, 000 events was performed.

SULT1A1 Antibody (C-term) - 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 Antibody (C-term) - References

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Wilborn T.W.,et al.Mol. Pharmacol. 43:70-77(1993).

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

Hwang S.-R.,et al.Biochem. Biophys. Res. Commun. 207:701-707(1995).