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SULT4A1a/b Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2610a

Product Information

Application	WB, E
Primary Accession	Q9BR01
Other Accession	NP_795343
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB5139
Calculated MW	33085
Antigen Region	1-30

Additional Information

Gene ID	25830
Other Names	Sulfotransferase 4A1, ST4A1, 282-, Brain sulfotransferase-like protein, hBR-STL, hBR-STL-1, Nervous system sulfotransferase, NST, SULT4A1, SULTX3
Target/Specificity	This SULT4A1a/b antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human SULT4A1a/b.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	SULT4A1a/b Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SULT4A1
Synonyms	SULTX3
Function	Atypical sulfotransferase family member with very low affinity for

	3'-phospho-5'-adenylyl sulfate (PAPS) and very low catalytic activity towards L-triiodothyronine, thyroxine, estrone, p- nitrophenol, 2-naphthylamine, and 2-beta-naphthol. May have a role in the metabolism of drugs and neurotransmitters in the CNS.
Cellular Location	Cytoplasm.
Tissue Location	Highly expressed in the cerebral cortex and frontal lobe, slightly less in the cerebellum, occipital and temporal lobes, relatively low in the medulla and putamen, and lowest in the spinal cord. No expression detected in the pancreas (PubMed:10698717). Highly expressed in fetal brain and occipital lobe, slightly less in the whole brain, frontal lobe, hippocampus, and lung, very low expression in cerebellum, medulla oblongata, temporal lobe, testis, kidney and appendix (PubMed:12039030).

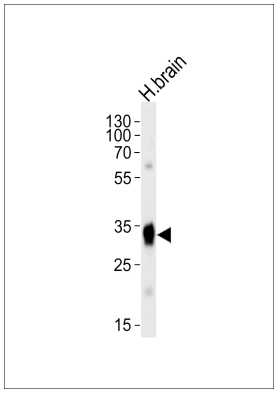
Background

Sulfotransferase enzymes catalyze the sulfate conjugation of many hormones, neurotransmitters, drugs, and xenobiotic compounds. These cytosolic enzymes are different in their tissue distributions and substrate specificities. The gene structure(number and length of exons) is similar among family members. SULT4A1 isoforms a and b are selectively expressed in brain tissue. Isoform a is the predominant of the two isoforms of this protein. Isoform b includes an alternate segment, compared to isoform a, that causes a frameshift. The resulting protein (isoform b) has a distinct and shorter C-terminus when compared to isoform a.

References

Liyou, N.E., et al., J. Histochem. Cytochem. 51(12):1655-1664 (2003).
Weinshilboum, R.M., et al., FASEB J. 11(1):3-14 (1997).
Glatt, H., et al., Mutat. Res. 482 (1-2), 27-40 (2001).
Sakakibara, Y., et al., Gene 285 (1-2), 39-47 (2002).
Glatt, H., et al., Toxicol. Lett. 112-113, 341-348 (2000).

Images



Western blot analysis of lysate from human brain tissue lysate, using SULT4A1a/b Antibody (M1)(Cat. #AP2610a). AP2610a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.