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SULT2A Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2603b

Product Information

Application	WB, E
Primary Accession	Q06520
Other Accession	NP_003158
Reactivity	Human
Predicted	Bovine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB05118
Calculated MW	33780
Antigen Region	253-285

Additional Information

Gene ID	6822
Other Names	Bile salt sulfotransferase, Dehydroepiandrosterone sulfotransferase, DHEA-ST, Hydroxysteroid Sulfotransferase, HST, ST2, ST2A3, Sulfotransferase 2A1, ST2A1, SULT2A1, HST, STD
Target/Specificity	This SULT2A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 253-285 amino acids from the C-terminal region of human SULT2A.
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	SULT2A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SULT2A1
Synonyms	HST, STD

Function	Sulfotransferase that utilizes 3'-phospho-5'-adenylyl sulfate (PAPS) as sulfonate donor to catalyze the sulfonation of steroids and bile acids in the liver and adrenal glands (PubMed:14573603, PubMed:18042734, PubMed:19589875, PubMed:20102295, PubMed:21187059, PubMed:2268288, PubMed:29671343, PubMed:7678732, PubMed:7854148). Mediates the sulfation of a wide range of steroids and sterols, including pregnenolone, androsterone, DHEA, bile acids, cholesterol and as well many xenobiotics that contain alcohol and phenol functional groups (PubMed:14573603, PubMed:18042734, PubMed:19589875, PubMed:20102295, PubMed:21187059, PubMed:2268288, PubMed:29671343, PubMed:7678732, PubMed:7854148). Sulfonation increases the water solubility of most compounds, and therefore their renal excretion, but it can also result in bioactivation to form active metabolites. Plays an important role in maintening steroid and lipid homeostasis (PubMed:14573603, PubMed:19589875, PubMed:21187059). Plays a key role in bile acid metabolism, mediating formation of 3-sulfated bile acids (PubMed:2268288, PubMed:20102295). In addition, catalyzes the metabolic activation of potent carcinogenic polycyclic arylmethanols (By similarity).
Cellular Location	Cytoplasm.
Tissue Location	Liver, adrenal and at lower level in the kidney. Is present in human fetus in higher level in the adrenal than the liver and the kidney

Background

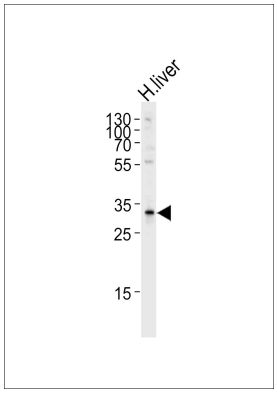
One of the major roles of the sulfotransferases (ST) in the metabolism of drugs and endogenous compounds is the conversion of these substances into more hydrophilic water-soluble sulfate conjugates that can be easily excreted. Sulfation may also play a regulatory role for many endogenous compounds, such as steroids and neurotransmitters, by altering the biologic properties of these compounds. Otterness et al. (1992), Kong et al. (1992), and Comer et al. (1993) reported the cloning of cDNAs encoding liver dehydroepiandrosterone (DHEA) sulfotransferase. The predicted protein has 285 amino acids. Although Northern blot analysis of human liver RNA detected transcripts of 3 different sizes, Southern blot analysis of human DNA suggested that only 1 gene is present in the genome. This gene has an important role in the sulfation of both bile acids and steroids in the liver and adrenals. The human adrenal form of this enzyme is physically, immunologically, and kinetically similar, perhaps identical, to the liver form. Dehydroepiandrosterone sulfate is quantitatively one of the major steroids secreted from the adrenal cortex.

References

Otterness, D. M., et al. Molec. Pharm. 41: 865-872 (1992).
Kong, A.-N. T., et al. Biochem. Biophys. Res. Commun. 187: 448-454 (1992).
Comer, K. A., et al. Biochem. J. 289: 233-240 (1993).

Images

Western blot analysis of lysate from human liver tissue lysate, using SULT2A Antibody (K268)(Cat. #AP2603b). AP2603b 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.



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