

SULT2A1/2/5 (I-18): sc-18728

BACKGROUND

Sulfation is an important pathway in the metabolism of many hormones and drugs. Hydroxysteroid sulfotransferase (SULT2A1), also designated dehydroepiandrosterone sulphotransferase, alcohol sulfotransferase, DHEA-ST, STE, ST2A3, belongs to the sulfotransferase family. SULT2A1 is mainly expressed in liver and adrenal tissues, and to a lesser extent in kidney. SULT2A1 catalyzes the 3'-phosphoadenosine 5'-phosphosulfate-dependent sulfation of a wide variety of steroids in human liver and adrenal tissues, and is also responsible for most of the sulfation of bile acids in human liver. For example, SULT2A1 catalyzes the transformation of dehydroepiandrosterone to dehydroepiandrosterone sulfate (DHEAS), which is the most abundant human steroid in circulation. DHEAS is also a major adrenal secretory product, particularly in the fetus, where it serves as a substrate for estrogen biosynthesis by the placenta, and thus SULT2A1 is also essential for human development. The gene encoding SULT2A1 maps to human chromosome 19.

REFERENCES

1. Nagata, K, et al. 1997. Arylamine activating sulfotransferase in liver. *Mutat Res.* 376: 267-372.
2. Yamazoe, Y, et al. 1999. Sulfotransferase catalyzing sulfation of heterocyclic amines. *Cancer Lett.* 143: 103-107.
3. Meinel, W, et al. 2001. Structure and localization of the human SULT1B1 gene: neighborhood to SULT1E1 and a SULT1D pseudogene. *Biochem. Biophys. Res. Commun.* 288: 855-862.
4. Meloche, C.A. et al. 2001. Expression and characterization of the human 3 beta-hydroxysteroid sulfotransferases (SULT2B1a and SULT2B1b). *J. Steroid Biochem. Mol. Biol.* 77: 261-269.
5. He, D. et al. 2004. Different subcellular localization of sulphotransferase 2B1b in human placenta and prostate. *Biochem. J.* 379: 533-540.

CHROMOSOMAL LOCATION

Genetic locus: SULT2A1 (human) mapping to 19q13.33; Sult2a1/Sult2a2/Sult2a5 (mouse) mapping to 7 A1.

SOURCE

SULT2A1/2/5 (I-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SULT2A1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18728 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

SULT2A1/2/5 (I-18) is recommended for detection of SULT2A1 of mouse and human origin, and SULT2A2 and SULT2A5 of mouse origin of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SULT2A1 siRNA (h): sc-44397, SULT2A1 shRNA Plasmid (h): sc-44397-SH and SULT2A1 shRNA (h) Lentiviral Particles: sc-44397-V.

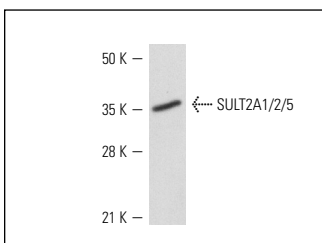
Molecular Weight of SULT2A1/2/5: 35/24/37 kDa.

Positive Controls: mouse liver extract: sc-2256 or Hep G2 cell lysate: sc-2227.

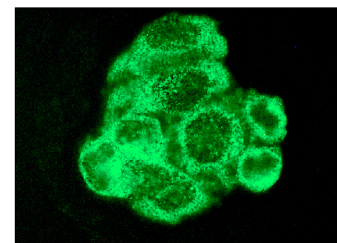
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SULT2A1/2/5 (I-18): sc-18728. Western blot analysis of SULT2A1 expression in mouse liver extract.



SULT2A1/2/5 (I-18): sc-18728. Immunofluorescence staining of methanol-fixed Hep G2 cells showing cytoplasmic localization.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
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Try **SULT2A1/2/5 (B-2): sc-398965**, our highly recommended monoclonal alternative to SULT2A1/2/5 (I-18).