SANTA CRUZ BIOTECHNOLOGY, INC.

SULT2A1/2 (N-18): sc-18725

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The soluble sulfotransferases contribute to the elimination of xenobiotics, the activation of procarcinogens and the regulation of hormones. Members of the three groups comprising this superfamily show selectivity to certain substrate compounds. SULT1 sulfotransferases exhibit N-sulfating activities of carcinogenic heterocyclic amines, and are selective toward phenols, whereas SULT2 enzymes prefer hydroxysteroids and SULT3 family members are selective for N-substituted aryl and alicyclic compounds. SULT2A1 catalyzes the sulfonation of procarcinogen xenobiotics, hydroxysteroids and bile acids, and is highly expressed in adrenal and liver tissues. SULT2A1 plays a role in hepatic cholesterol homeostasis. SULT2A2 is a murine protein that contains 194 amino acids and shares 45 percent homology with human SULT2A1.

REFERENCES

1. Nagata, K., et al. 1997. Arylamine activating sulfotransferase in liver. Mutat. Res. 376: 267-272.
2. Yamazoe, Y., et al. 1999. Sulfotransferase catalyzing sulfation of heterocyclic amines. Cancer Lett. 143: 103-107.
3. Meinl, 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 β-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.
6. He, D. et al. 2005. Identification and immunohistochemical localization of Sulfotransferase 2B1b (SULT2B1b) in human lung. Biochim. Biophys. Acta 1724: 119-126.

CHROMOSOMAL LOCATION

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

SOURCE

SULT2A1/2 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SULT2A1 of human 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-18725 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 (N-18) is recommended for detection of SULT2A1 of mouse and human origin, and SULT2A2 of mouse 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SULT2A1/2 (N-18) is also recommended for detection of SULT2A1 and SULT2A2 in additional species, including equine.

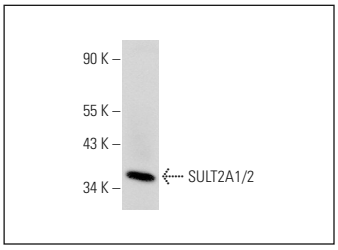
Suitable for use as control antibody for SULT2A1 siRNA (h): sc-44397, SULT2A1 shRNA Plasmid (h): sc-44397-SH and SULT2A1 shRNA (h) Lentiviral Particles: sc-44397-V.

Molecular Weight of SULT2A1: 35 kDa.

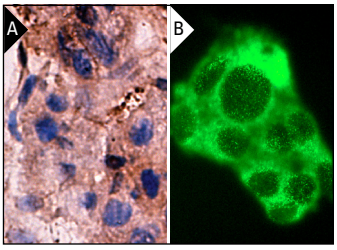
Molecular Weight of SULT2A2: 24 kDa.

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

DATA



SULT2A1/2 (N-18): sc-18725. Western blot analysis of SULT2A1/2 expression in mouse liver tissue extract.



SULT2A1/2 (N-18): sc-18725. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tumor (**A**) and immunofluorescence staining of methanol-fixed Hep G2 cells (**B**) showing cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.