

SULT2A1/2/5 (B-2): sc-398965

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 and SULT2A5 are murine proteins that share 45 and 63 percent homology with human SULT2A1, respectively.

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. Meini, W. and Glatt, H. 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/Sult2a2/Sult2a5 (mouse) mapping to 7 A1.

SOURCE

SULT2A1/2/5 (B-2) is a mouse monoclonal antibody raised against amino acids 199-247 mapping near the C-terminus of SULT2A1 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SULT2A1/2/5 (B-2) is available conjugated to agarose (sc-398965 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398965 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398965 PE), fluorescein (sc-398965 FITC), Alexa Fluor[®] 488 (sc-398965 AF488), Alexa Fluor[®] 546 (sc-398965 AF546), Alexa Fluor[®] 594 (sc-398965 AF594) or Alexa Fluor[®] 647 (sc-398965 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398965 AF680) or Alexa Fluor[®] 790 (sc-398965 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SULT2A1/2/5 (B-2) is recommended for detection of SULT2A1, SULT2A2 and SULT2A5 of mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Molecular Weight of SULT2A1: 35 kDa.

Molecular Weight of SULT2A2: 24 kDa.

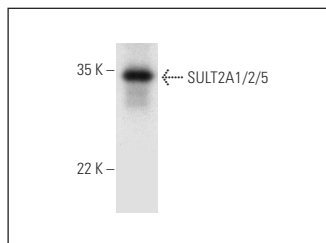
Molecular Weight of SULT2A5: 37 kDa.

Positive Controls: mouse liver extract: sc-2256.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



SULT2A1/2/5 (B-2): sc-398965. Western blot analysis of SULT2A1/2/5 expression in mouse liver tissue extract.

SELECT PRODUCT CITATIONS

1. Mao, F., et al. 2019. Increased sulfation of bile acids in mice and human subjects with sodium taurocholate cotransporting polypeptide deficiency. *J. Biol. Chem.* 294: 11853-11862.

STORAGE

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

RESEARCH USE

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

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