BACKGROUND

The soluble sulfotransferases contribute to the elimination of xenobiotics, the activation of procarcinogens and the regulation of hormones by catalyzing the sulfate conjugation of these substances. Members of the three groups comprising this superfamily (namely SULT1, SULT2 and SULT3) 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. SULT1E1, also known as STE, is a 294 amino acid member of the SULT1 family. Localized to the cytoplasm and expressed in intestine, liver and kidney, SULT1E1 exists as a homodimer that is thought to control estrogen receptor (ER) levels by sulfonylating free estradiol. Defects in the gene encoding SULT1E1 are associated with an increased risk for endometrial cancer, suggesting a role for SULT1E1 in tumorigenesis.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: SULT1E1 (human) mapping to 4q13.3; Sult1e1 (mouse) mapping to 5 E1.

SOURCE

SULT1E1 (E-12) is a mouse monoclonal antibody raised against amino acids 54-93 mapping within an internal region of SULT1E1 of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

SULT1E1 (E-12) is recommended for detection of SULT1E1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for SULT1E1 siRNA (h): sc-88903, SULT1E1 siRNA (m): sc-153924, SULT1E1 shRNA Plasmid (h): sc-88903-SH, SULT1E1 shRNA Plasmid (m): sc-153924-SH, SULT1E1 shRNA (h) Lentiviral Particles: sc-88903-V and SULT1E1 shRNA (m) Lentiviral Particles: sc-153924-V.

Molecular Weight of SULT1E1: 35 kDa.

Positive Controls: mouse brain extract: sc-2253 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).

DATA

SULT1E1 (E-12) sc-376009. Western blot analysis of SULT1E1 expression in Hep G2 whole cell lysate (A) and mouse brain tissue extract (B).

SELECT PRODUCT CITATIONS


RESEARCH USE

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