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 sulfating 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.

SULT1E1 (E-12) is available conjugated to agarose (sc-376009 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376009 HRP), 200 µg/ml, for WB, HICP) and ELISA; to either phycoerythrin (sc-376009 PE), fluorescein (sc-376009 FITC), Alexa Fluor® 488 (sc-376009 AF488), Alexa Fluor® 546 (sc-376009 AF546), Alexa Fluor® 594 (sc-376009 AF594) or Alexa Fluor® 647 (sc-376009 AF647), 200 µg/ml, for WB (RGB), IF, IHC and FCM; and to either Alexa Fluor® 680 (sc-376009 AF680) or Alexa Fluor® 790 (sc-376009 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG 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 BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistoquant®: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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