SANTA CRUZ BIOTECHNOLOGY, INC.

ENT2 (A-8): sc-373872

BACKGROUND

Equilibrative nucleoside transporters (ENTs) regulate many physiological processes and are widely distributed in mammals, plants, yeasts, insects, nematodes and protozoans. They enable facilitated diffusion of hydrophilic nucleosides, such as adenosine and nucleoside analogs, across cell membranes. ENTs are required for uptake of antiviral and anticancer nucleoside drugs and influence a variety of physiological processes, such as neurotransmission and platelet aggregation, by regulating the amount of adenoside available to cell surface receptors. Equilibrative nucleoside transporter 2 (ENT2), also designated solute carrier family 29 (nucleoside transporters), member 2, belongs to the SLC29A transporter family and is a mammalian ENT isoform. ENT2 mediates the equilibrative transport of hypoxanthine in addition to nucleosides and is purine-selective.

CHROMOSOMAL LOCATION

Genetic locus: SLC29A2 (human) mapping to 11q13.2; Slc29a2 (mouse) mapping to 19 A.

SOURCE

ENT2 (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 138-169 within an internal region of ENT2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-373872 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

ENT2 (A-8) is recommended for detection of ENT2 isoforms 1 and 2 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 ENT2 siRNA (h): sc-60585, ENT2 siRNA (m): sc-60586, ENT2 shRNA Plasmid (h): sc-60585-SH, ENT2 shRNA Plasmid (m): sc-60586-SH, ENT2 shRNA (h) Lentiviral Particles: sc-60585-V and ENT2 shRNA (m) Lentiviral Particles: sc-60586-V.

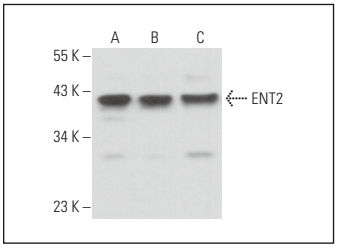
Molecular Weight of ENT2: 50-55 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or Raji whole cell lysate: sc-364236.

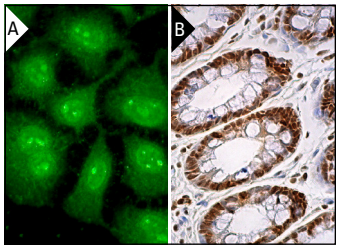
RECOMMENDED SUPPORT REAGENTS

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, 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ENT2 (A-8): sc-373872. Western blot analysis of ENT2 expression in K-562 (**A**), Jurkat (**B**) and Raji (**C**) whole cell lysates.



ENT2 (A-8): sc-373872. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and membrane localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Pfeifer, E., et al. 2018. Regulation of human placental drug transporters in HCV infection and their influence on direct acting antiviral medications. Placenta 69: 32-39.
2. Mayati, A., et al. 2018. mRNA expression and activity of nucleoside transporters in human hepatoma HepaRG cells. Pharmaceutics 10: 246.
3. Pietrobono, D., et al. 2024. Extracellular adenosine oppositely regulates the purinome machinery in glioblastoma and mesenchymal stem cells. IUBMB Life 76: 1234-1251.
4. Chava, S., et al. 2024. Mechanisms of sorafenib resistance in HCC culture relate to the impaired membrane expression of organic cation transporter 1 (OCT1). J. Hepatocell. Carcinoma 11: 839-855.

RESEARCH USE

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

PROTOCOLS

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