

ENT1 (G-6): sc-515240

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 1 (ENT1), also designated solute carrier family 29 (nucleoside transporters), member 1, belongs to the SLC29A transporter family and is a mammalian ENT isoform. ENT1, along with ENT3, mediates the majority of influx and efflux of nucleosides across the plasma membrane.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602193. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Mangravite, L.M., et al. 2003. Localization of human equilibrative nucleoside transporters, hENT1 and hENT2, in renal epithelial cells. *Am. J. Physiol. Renal Physiol.* 284: F902-F910.
3. Vickers, M.F., et al. 2004. Uridine recognition motifs of human equilibrative nucleoside transporters 1 and 2 produced in *Saccharomyces cerevisiae*. *Nucleosides Nucleotides Nucleic Acids* 23: 361-373.
4. Stolk, M., et al. 2005. Subtype-specific regulation of equilibrative nucleoside transporters by protein kinase CK2. *Biochem. J.* 386: 281-289.
5. Visser, F., et al. 2005. Identification and mutational analysis of amino acid residues involved in dipyrindamole interactions with human and *Caenorhabditis elegans* equilibrative nucleoside transporters. *J. Biol. Chem.* 280: 11025-11034.

CHROMOSOMAL LOCATION

Genetic locus: SLC29A1 (human) mapping to 6p21.1; Slc29a1 (mouse) mapping to 17 B3.

SOURCE

ENT1 (G-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-15 at the N-terminus of ENT1 of human origin.

PRODUCT

Each vial contains 200 µg IgM 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-515240 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

ENT1 (G-6) is recommended for detection of ENT1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ENT1 siRNA (h): sc-60583, ENT1 siRNA (m): sc-60584, ENT1 siRNA (r): sc-270325, ENT1 shRNA Plasmid (h): sc-60583-SH, ENT1 shRNA Plasmid (m): sc-60584-SH, ENT1 shRNA Plasmid (r): sc-270325-SH, ENT1 shRNA (h) Lentiviral Particles: sc-60583-V, ENT1 shRNA (m) Lentiviral Particles: sc-60584-V and ENT1 shRNA (r) Lentiviral Particles: sc-270325-V.

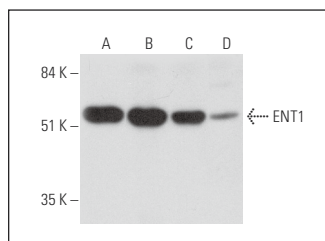
Molecular Weight of ENT1: 50-55 kDa.

Positive Controls: human heart extract: sc-363763, rat heart extract: sc-2393 or mouse brain extract: sc-2253.

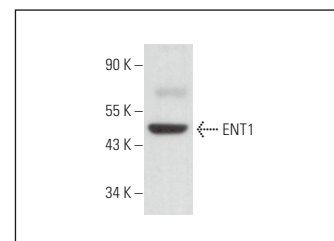
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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.

DATA



ENT1 (G-6): sc-515240. Western blot analysis of ENT1 expression in human heart (A), rat heart (B) and mouse brain (C) tissue extracts and MDA-MB-435S whole cell lysate (D).



ENT1 (G-6): sc-515240. Western blot analysis of ENT1 expression in rat postnatal heart tissue extract.

RESEARCH USE

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



See **ENT1 (F-12): sc-377283** for ENT1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.