SANTA CRUZ BIOTECHNOLOGY, INC.

ENT2 (D-9): sc-373871

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

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. Leung, G.P., et al. 2005. Effect of thiazolidinediones on equilibrative nucleoside transporter-1 in human aortic smooth muscle cells. Biochem. Pharmacol. 70: 355-362.
3. Sarkar, M., et al. 2005. Cytosine arabinoside affects multiple cellular factors and induces drug resistance in human lymphoid cells. Biochem. Pharmacol. 70: 426-432.

CHROMOSOMAL LOCATION

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

SOURCE

ENT2 (D-9) 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_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ENT2 (D-9) is available conjugated to agarose (sc-373871 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373871 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373871 PE), fluorescein (sc-373871 FITC), Alexa Fluor® 488 (sc-373871 AF488), Alexa Fluor® 546 (sc-373871 AF546), Alexa Fluor® 594 (sc-373871 AF594) or Alexa Fluor® 647 (sc-373871 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373871 AF680) or Alexa Fluor® 790 (sc-373871 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373871 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

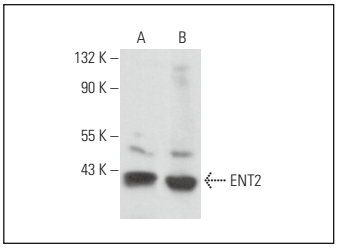
ENT2 (D-9) is recommended for detection of ENT2 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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.

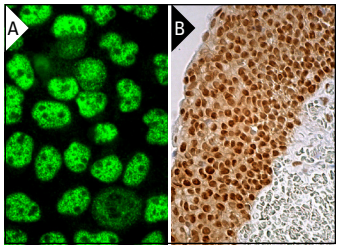
Molecular Weight of ENT2: 50-55 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or SH-SY5Y cell lysate: sc-3812.

DATA



ENT2 (D-9): sc-373871. Western blot analysis of ENT2 expression in Hep G2 (**A**) and SH-SY5Y (**B**) whole cell lysates.



ENT2 (D-9): sc-373871. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear and cytoplasmic staining of urothelial cells (**B**).

SELECT PRODUCT CITTIONS

1. Wang, C., et al. 2015. Establishment of human pancreatic cancer gemcitabine-resistant cell line with ribonucleotide reductase overexpression. Oncol. Rep. 33: 383-390.
2. Salman, S. and Nurse, C.A. 2018. Molecular characterization of equilibrative nucleoside transporters in the rat carotid body and their regulation by chronic hypoxia. Adv. Exp. Med. Biol. 1071: 43-50.
3. Krys, D., et al. 2019. Effect of hypoxia on human equilibrative nucleoside transporters hENT1 and hENT2 in breast cancer. FASEB J. 33: 13837-13851.
4. Tran, D.H., et al. 2024. De novo and salvage purine synthesis pathways across tissues and tumors. Cell 187: 3602-3618.e20.

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.