

# ENT1 (F-12): sc-377283

## 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 adenosine 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

ENT1 (F-12) is a mouse monoclonal antibody raised against amino acids 226-340 mapping within an internal region of ENT1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ENT1 (F-12) is available conjugated to agarose (sc-377283 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377283 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377283 PE), fluorescein (sc-377283 FITC), Alexa Fluor<sup>®</sup> 488 (sc-377283 AF488), Alexa Fluor<sup>®</sup> 546 (sc-377283 AF546), Alexa Fluor<sup>®</sup> 594 (sc-377283 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-377283 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-377283 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-377283 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

ENT1 (F-12) 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), 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 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.

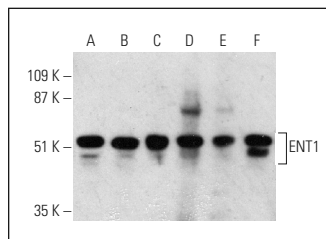
Molecular Weight of ENT1: 50-55 kDa.

Positive Controls: rat heart extract: sc-2393 or mouse heart extract: sc-2254.

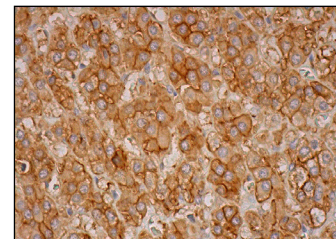
## STORAGE

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

## DATA



ENT1 (F-12): sc-377283 HRP. Direct western blot analysis of ENT1 expression in EOC 20 whole cell lysate (A) and mouse liver (B), mouse brain (C), rat heart (D), mouse heart (E) and rat brain (F) tissue extracts.



ENT1 (F-12): sc-377283. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing membrane and cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Hiraoka, N., et al. 2014. Purine analog-like properties of bendamustine underlie rapid activation of DNA damage response and synergistic effects with pyrimidine analogues in lymphoid malignancies. *PLoS ONE* 9: e90675.
- Wang, C., et al. 2015. Establishment of human pancreatic cancer gemcitabine-resistant cell line with ribonucleotide reductase overexpression. *Oncol. Rep.* 33: 383-390.
- Ghoneim, R.H. and Piquette-Miller, M. 2016. Endotoxin-mediated down-regulation of hepatic drug transporters in HIV-1 transgenic rats. *Drug Metab. Dispos.* 44: 709-719.
- Song, A., et al. 2017. Erythrocytes retain hypoxic adenosine response for faster acclimatization upon re-ascent. *Nat. Commun.* 8: 14108.
- Kawamoto, M., et al. 2018. Combined gemcitabine and metronidazole is a promising therapeutic strategy for cancer stem-like cholangiocarcinoma. *Anticancer Res.* 38: 2739-2748.
- 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.
- Krys, D., et al. 2019. Effect of hypoxia on human equilibrative nucleoside transporters hENT1 and hENT2 in breast cancer. *FASEB J.* 33: 13837-13851.
- Karimian Pour, N., et al. 2019. Impact of viral inflammation on the expression of renal drug transporters in pregnant rats. *Pharmaceutics* 11: 624.
- Bauer, E.E., et al. 2020. Exercise-induced adaptations to the mouse striatal adenosine system. *Neural Plast.* 2020: 5859098.

## RESEARCH USE

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

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