

NTPDase8 (Y-13): sc-160611

BACKGROUND

Members of the ecto-nucleoside triphosphate diphosphohydrolase (eNTPDase) protein family are glycosylated enzymes that hydrolyze nucleoside 5'-triphosphates and 5'-diphosphates in extracellular space. The enzymatic activities of eNTPDase are dependent on cations such as magnesium and calcium. Members of this protein family differ in their affinities for triphosphates versus diphosphates as substrate material. NTPDase8, also known as ENTPD8 (ectonucleoside triphosphate diphosphohydrolase 8) or E-NTPDase 8, is a 495 amino acid multi-pass membrane protein belonging to the GDA1/CD39 NTPase family. As a canalicular ectonucleoside NTPDase, NTPDase8 is involved in hepatic NTPDase activity and helps concentrate extracellular nucleotides. NTPDase8 binds calcium as a cofactor, becomes glycosylated following translation and exists as two alternatively spliced isoforms.

REFERENCES

1. Robson, S.C., et al. 2005. Ectonucleotidases of CD39 family modulate vascular inflammation and thrombosis in transplantation. *Semin. Thromb. Hemost.* 31: 217-233.
2. Knowles, A.F., et al. 2006. Molecular cloning and characterization of expressed human ecto-nucleoside triphosphate diphosphohydrolase 8 (E-NTPDase 8) and its soluble extracellular domain. *Biochemistry* 45: 7323-7333.
3. Atkinson, B., et al. 2006. Ecto-nucleotidases of the CD39/NTPDase family modulate platelet activation and thrombus formation: Potential as therapeutic targets. *Blood Cells Mol. Dis.* 36: 217-222.
4. Fausther, M., et al. 2007. Cloning, purification, and identification of the liver canalicular ecto-ATPase as NTPDase8. *Am. J. Physiol. Gastrointest. Liver Physiol.* 292: G785-G795.
5. Munkonda, M.N., et al. 2007. Inhibition of human and mouse plasma membrane bound NTPDases by P2 receptor antagonists. *Biochem. Pharmacol.* 74: 1524-1534.

CHROMOSOMAL LOCATION

Genetic locus: ENTPD8 (human) mapping to 9q34.3; Entpd8 (mouse) mapping to 2 A3.

SOURCE

NTPDase8 (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of NTPDase8 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160611 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

NTPDase8 (Y-13) is recommended for detection of NTPDase8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 NTPDase8 siRNA (h): sc-92553, NTPDase8 siRNA (m): sc-150087, NTPDase8 shRNA Plasmid (h): sc-92553-SH, NTPDase8 shRNA Plasmid (m): sc-150087-SH, NTPDase8 shRNA (h) Lentiviral Particles: sc-92553-V and NTPDase8 shRNA (m) Lentiviral Particles: sc-150087-V.

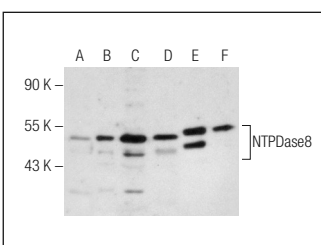
Molecular Weight of NTPDase8 isoforms: 54/49 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, NTPDase8 (h): 293T Lysate: sc-112518, or c4 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NTPDase8 (Y-13): sc-160611. Western blot analysis of NTPDase8 expression in non-transfected 293T: sc-117752 (A), human NTPDase8 transfected 293T: sc-112518 (B), K-562 (C), CHO (D), NTERA-2 cl.D1 (E) and c4 (F) whole cell lysates.

STORAGE

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

PROTOCOLS

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