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ENTPD2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9325a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q9Y5L3
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23779
Calculated MW	53665
Antigen Region	86-113

Additional Information

Gene ID	954
Other Names	Ectonucleoside triphosphate diphosphohydrolase 2, NTPDase 2, 361-, CD39 antigen-like 1, Ecto-ATP diphosphohydrolase 2, Ecto-ATPDase 2, Ecto-ATPase 2, ENTPD2, CD39L1
Target/Specificity	This ENTPD2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 86-113 amino acids from the N-terminal region of human ENTPD2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ENTPD2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ENTPD2 (HGNC:3364)
Function	Catalyzes the hydrolysis of nucleoside triphosphates (NTPs) and diphosphates (NDPs), with a marked preference for triphosphonucleosides

over diphosphonucleosides (PubMed:10510450, PubMed:12888562, PubMed:16101300, PubMed:18404504). The enzyme sequentially removes phosphate groups in two successive steps, converting NTPs to nucleoside monophosphates (NMPs) via NDP intermediates (PubMed:10510450, PubMed:12888562, PubMed:16101300, PubMed:18404504). This activity contributes to the regulation of extracellular nucleotides levels (PubMed:10510450, PubMed:12888562, PubMed:16101300, PubMed:18404504). ATP hydrolysis is characterized by fast ADP accumulation and delayed AMP formation, reflecting limited ADP hydrolase activity (By similarity). Hydrolyzes ADP and UDP only to a marginal extent, and does not hydrolyze AMP (PubMed:10510450, PubMed:12888562, PubMed:16101300, PubMed:18404504). All nucleoside 5'- diphosphates are hydrolyzed at rates lower than those of their corresponding triphosphates (By similarity).

Cellular Location

[Isoform Long]: Cell membrane; Multi-pass membrane protein [Isoform gamma]: Endoplasmic reticulum membrane; Multi-pass membrane protein

Tissue Location

Brain, placenta, skeletal muscle, kidney, pancreas, heart, ovary, testis, colon, small intestine, prostate and pancreas (PubMed:9271669). No expression in adult thymus, spleen, lung, liver and peripheral blood leukocytes (PubMed:9271669)

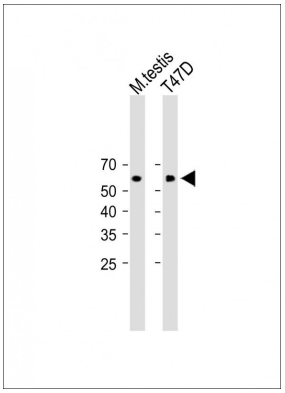
Background

ENTPD2 is the type 2 enzyme of the ecto-nucleoside triphosphate diphosphohydrolase family (E-NTPDase). E-NTPDases are a family of ecto-nucleosidases that hydrolyze 5'-triphosphates. This ecto-ATPase is an integral membrane protein.

References

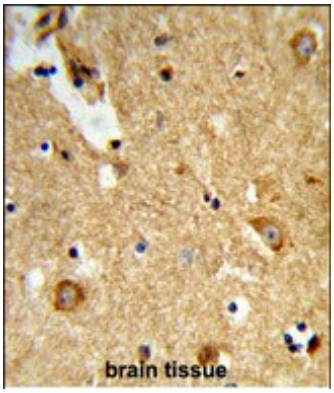
Chiang,W.C. Biochemistry 47 (33), 8775-8785 (2008)
Javed,R. Biochemistry 46 (22), 6617-6627 (2007)
Mukasa,T.Biochemistry 44 (33), 11160-11170 (2005)

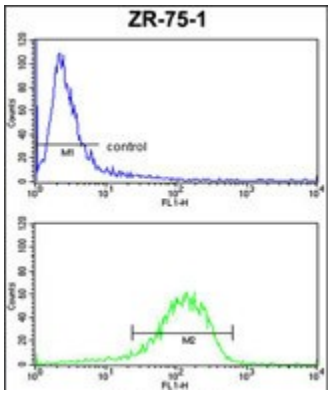
Images



All lanes : Anti-ENTPD2 Antibody (N-term) at 1:1000 dilution Lane 1: Mouse testis tissue lystate Lane 2: T47D whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 54kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Formalin-fixed and paraffin-embedded human brain tissue reacted with ENTPD2 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.





ENTPD2 Antibody (N-term) (Cat.#AP9325a) FC analysis of ZR-75-1 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.