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ENPP6 Rabbit pAb

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Catalog # AP55056

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q6UWR7
Reactivity	Pig, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50241
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ENPP6
Epitope Specificity	251-350/440
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Single-pass type I membrane protein. Secreted. Note: A minor secreted form also exists.
SIMILARITY	Belongs to the nucleotide pyrophosphatase/phosphodiesterase family.
SUBUNIT	Homodimer; disulfide-linked.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	NPP6 is a 440 amino acid member of the nucleotide pyrophosphatase/phosphodiesterase family. NPP6 is a secreted and single-pass type I membrane protein. Predominantly expressed in brain and kidney, NPP6 is a choline-specific glycerophosphodiester phosphodiesterase. NPP6 can hydrolyze the classical substrate for phospholipase C, p-nitrophenyl phosphorylcholine, glycerophosphorylcholine, sphingosylphosphorylcholine and lysophosphatidylcholine (LPC). NPP6 has been found to have a preference for LPC with polyunsaturated or short fatty acids. The gene encoding NPP6 maps to human chromosome 4, which consists of approximately 6% of the human genome and nearly 900 genes. Chromosome 4 is associated with Huntington's disease, FGFR-3, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

Additional Information

Gene ID	133121
Other Names	Glycerophosphocholine cholinephosphodiesterase ENPP6, GPC-Cpde, 3.1.4.-, 3.1.4.38, Choline-specific glycerophosphodiester phosphodiesterase, Ectonucleotide pyrophosphatase/phosphodiesterase family member 6, E-NPP 6, NPP-6, ENPP6 (HGNC:23409)
Target/Specificity	Predominantly expressed in kidney and brain. In the kidney, expressed

	specifically in the proximal tubules and thin descending limbs of Henle (at protein level).
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

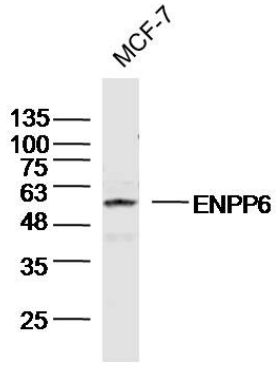
Protein Information

Name	ENPP6 (HGNC:23409)
Function	Choline-specific glycerophosphodiesterase that hydrolyzes glycerophosphocholine (GPC) and lysophosphatidylcholine (LPC) and contributes to supplying choline to the cells (PubMed:15788404). Has a preference for LPC with short (12:0 and 14:0) or polyunsaturated (18:2 and 20:4) fatty acids. In vitro, hydrolyzes only choline-containing lysophospholipids, such as sphingosylphosphorylcholine (SPC), platelet-activating factor (PAF) and lysoPAF, but not other lysophospholipids (By similarity).
Cellular Location	Cell membrane; Lipid-anchor, GPI-anchor. Note=A small amount of the protein may be found in the extracellular milieu
Tissue Location	Predominantly expressed in kidney and brain. In the kidney, expressed specifically in the proximal tubules and thin descending limbs of Henle (at protein level)

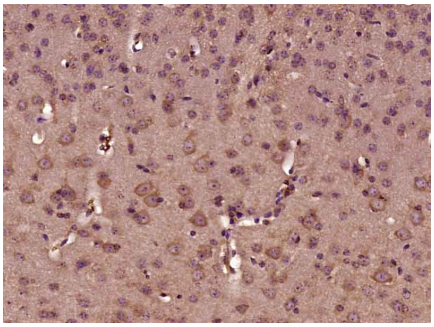
Background

NPP6 is a 440 amino acid member of the nucleotide pyrophosphatase/phosphodiesterase family. NPP6 is a secreted and single-pass type I membrane protein. Predominantly expressed in brain and kidney, NPP6 is a choline-specific glycerophosphodiester phosphodiesterase. NPP6 can hydrolyze the classical substrate for phospholipase C, p-nitrophenyl phosphorylcholine, glycerophosphorylcholine, sphingosylphosphorylcholine and lysophosphatidylcholine (LPC). NPP6 has been found to have a preference for LPC with polyunsaturated or short fatty acids. The gene encoding NPP6 maps to human chromosome 4, which consists of approximately 6% of the human genome and nearly 900 genes. Chromosome 4 is associated with Huntington's disease, FGFR-3, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

Images



Sample:MCF-7 Cell (Human) Lysate at 40 ug
Primary: Anti-ENPP6(AP55056)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 46kD
Observed band size: 50kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ENPP6) Polyclonal Antibody, Unconjugated (AP55056) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.