

Rabbit Anti-CNPase antibody

SL1000R

Product Name:	CNPase
Chinese Name:	2',3'-环腺苷酸-3'-磷酸二酯酶抗体
Alias:	2',3'-cyclic-nucleotide 3'-phosphodiesterase; CNPase; Cnp; Cnp-1; Cnp1; 2"; 2'3' cyclic nucleotide 3' phosphodiesterase; 2'3'-cyclic-nucleotide 3'-phosphodiesterase; 3"-cyclic-nucleotide 3"-phosphodiesterase; CN37_HUMAN; CNP 1; CNP; CNP1; CNPase.
	Specific References(1) SL1000R has been referenced in 1 publications.
文献引用	[IF=2.43]Li, Ping, et al. "CNP signal pathway up-regulated in rectum of depressed rats
Pub	and the interventional effect of Xiaoyaosan." World Journal of Gastroenterology: WJG
:	21.5 (2015): 1518.IHC-P;Rat.
	PubMed:25663771
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Cow, Horse, Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	48kDa
Cellular localization:	cytoplasmicExtracellular matrix
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CNPase:151-250/421
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year

when kept at -20°C. 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.

PubMed:

PubMed

2',3'-cyclic nucleotide 3'-phosphodiesterase (CNP or CNPase). This family consists of the eukaryotic protein 2',3'-cyclic nucleotide 3'-phosphodiesterase (CNP). 2',3'-cyclic nucleotide 3'-phosphodiesterase (CNP) is one of the earliest myelin-related proteins expressed in differentiating oligodendrocytes and Schwann cells. CNP is abundant in the central nervous system and in oligodendrocytes. This protein is also found in mammalian photoreceptor cells, testis and lymphocytes. Although the biological function of CNP is unknown, it is thought to play a significant role in the formation of the myelin sheath, where it comprises 4% of total protein. CNP selectively cleaves 2',3'cyclic nucleotides to produce 2'-nucleotides in vitro. Although physiologically relevant substrates with 2',3'-cyclic termini are still unknown, numerous cyclic phosphate containing RNAs occur transiently within eukaryotic cells. Other known protein families capable of hydrolysing 2',3'-cyclic nucleotides include tRNA ligases and plant cyclic phosphodiesterases. The catalytic domains from all these proteins contain two tetrapeptide motifs H-X-T/S-X, where X is usually a hydrophobic residue. Mutation of either histidine in CNP abolishes enzymatic activity. CNPases belong to the 2H phosphoesterase superfamily. They share a common active site, characterised by two conserved histidines, with the bacterial tRNA-ligating enzyme LigT, vertebrate myelinassociated 2',3' phosphodiesterases, plant Arabidopsis thaliana CPDases and several several bacteria and virus proteins.

Product Detail:

Function:

May participate in RNA metabolism in the myelinating cell, CNP is the third most abundant protein in central nervous system myelin.

Subunit:

Exists as monomers and homodimers.

Subcellular Location:

Membrane. Melanosome. Firmly bound to membrane structures of brain white matter. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Similarity:

Belongs to the cyclic nucleotide phosphodiesterase family.

SWISS:

P09543

Gene ID:

1267

Database links:

Entrez Gene: 280752 Cow

Entrez Gene: 607694 Dog

Entrez Gene: 1267 Human

Entrez Gene: 12799 Mouse

Entrez Gene: 493772 Pig

Entrez Gene: 25275 Rat

Omim: 123830 Human

SwissProt: P06623 Cow

SwissProt: P09543 Human

SwissProt: P16330 Mouse

SwissProt: P18104 Pig

SwissProt: P13233 Rat

SwissProt: P56283 Sheep

Unigene: 273621 Human

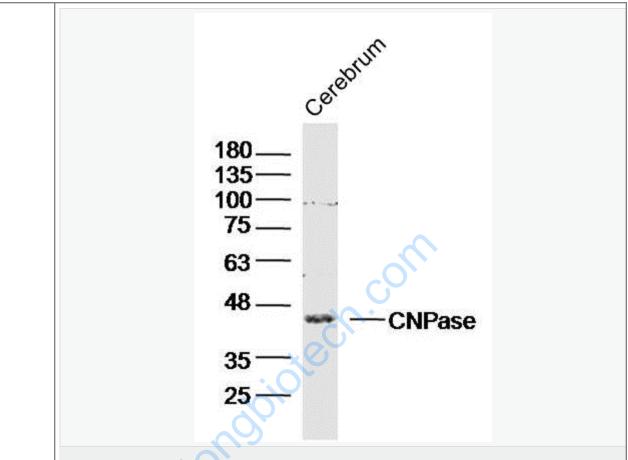
Unigene: 15711 Mouse

Unigene: 31762 Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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Picture:

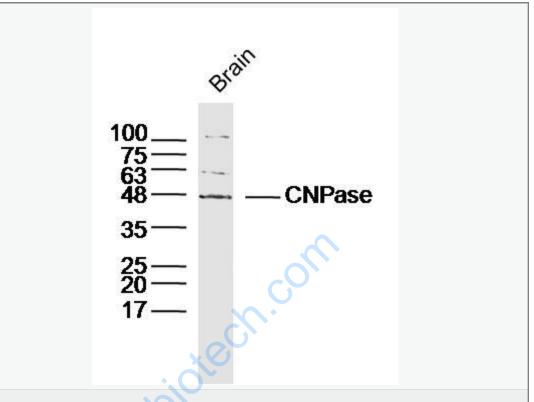
Sample: Cerebrum (Mouse) Lysate at 40 ug

Primary: Anti-CNPase(SL1000R) at 1/300 dilution

Secondary: HRP conjugated Goat-Anti-rabbit IgG (SL1000R) at 1/5000 dilution

Predicted band size: 48 kD

Observed band size: 46 kD



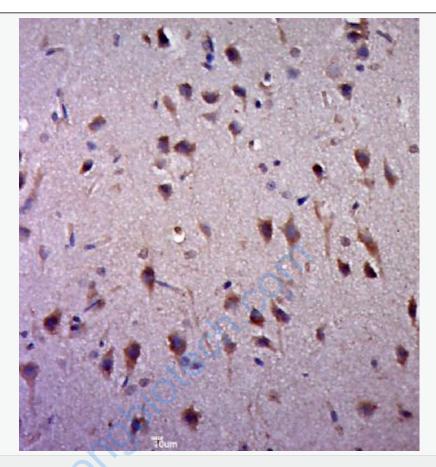
Sample: Brain (Mouse) Lysate at 40 ug

Primary: Anti-CNPase (SL1000R) at 1/300 dilution

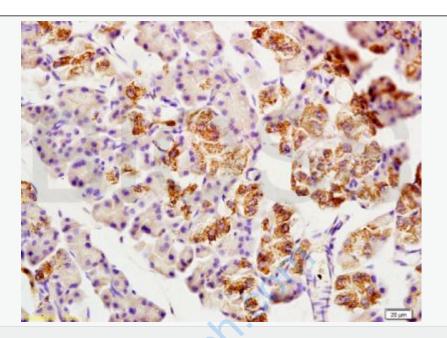
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 48kD

Observed band size: 48kD



Paraformaldehyde-fixed, paraffin embedded (Rat 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 (CNPase) Polyclonal Antibody, Unconjugated (SL1000R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



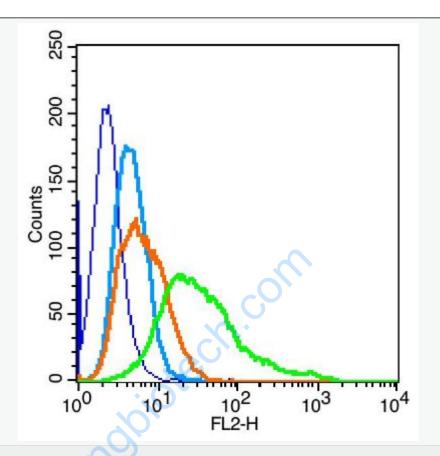
Tissue/cell: rat pancreas tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-CNP/CNPase Polyclonal Antibody, Unconjugated(SL1000R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



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Blank control: U-87MG(blue).

Primary Antibody:Rabbit Anti-CNPase antibody(SL1000R), Dilution: $1\mu g$ in $100~\mu L$ 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions); Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min). Primary antibody (SL1000R) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking

buffer mentioned above to react with the primary antibody at 1/200 dilution for 30
min on ice. Acquisition of 20,000 events was performed.

