

Anti-CNPase Picoband Antibody

Catalog # ABO10134

Product Information

Application	WB
Primary Accession	P09543
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for 2',3'-cyclic-nucleotide 3'-phosphodiesterase(CNP) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1267
Other Names	2', 3'-cyclic-nucleotide 3'-phosphodiesterase, CNP, CNPase, 3.1.4.37, CNP
Calculated MW	47579
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Membrane; Lipid-anchor. Melanosome. Firmly bound to membrane structures of brain white matter. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Source	Eukaryota
Protein Name	2',3'-cyclic-nucleotide 3'-phosphodiesterase
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human CNPase (142-178aa QYQVVLVEPKTAWRLDCAQLKEKNQWQLSADDLKKLK), identical to the related mouse sequence, and different from the related rat sequence by one amino acid.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated

freezing and thawing.

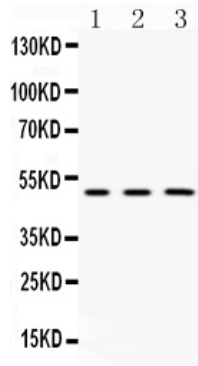
Protein Information

Name	CNP (HGNC:2158)
Function	Myelin-associated enzyme that catalyzes the phosphodiester hydrolysis of 2',3'-cyclic nucleotides to 2'-nucleotides. In the mitochondria, regulates the functioning of the mitochondrial permeability transition pore (mPTP), and thus is involved in the mechanisms of cell death, both apoptosis and necrosis. Acts as an antiviral factor by suppressing the assembly of SARS-CoV-2 virions (PubMed: 38117830).
Cellular Location	Melanosome. Mitochondrion. Note=Firmly bound to membrane structures of brain white matter {ECO:0000250 UniProtKB:P16330}

Background

2',3'-Cyclic-nucleotide 3'-phosphodiesterase, also known as CNPase, is an enzyme that in humans is encoded by the CNP gene. And this gene is mapped to 17q21.2. CNPase is named for its ability to catalyze the phosphodiester hydrolysis of 2',3'-cyclic nucleotides to 2'-nucleotides. CNPase is thought to play a critical role in the events leading up to myelination. Additionally, CNPase has been demonstrated to inhibit the replication of HIV-1 and other primate lentiviruses by binding the retroviral Gag protein and inhibiting the genesis of nascent viral particles.

Images



Western blot analysis of CNPase expression in rat brain extract (lane 1), mouse brain extract (lane 2) and HELA whole cell lysates (lane 3). CNPase at 47KD was detected using rabbit anti- CNPase Antigen Affinity purified polyclonal antibody (Catalog # ABO10134) at 0.5 μ g/mL. The blot was developed using chemiluminescence (ECL) method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.