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# Anti-CNPase Antibody

Catalog # AP59520

## Product Information

| | |
|---|---|
| **Application** | WB, IHC, IF/IC |
| **Primary Accession** | P09543 |
| **Reactivity** | Human, Mouse, Rat, Sheep, Mk |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 47579 |

## Additional Information

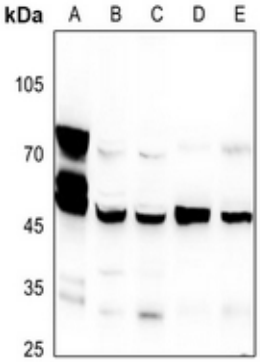
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|---|---|
| **Gene ID** | 1267 |
| **Other Names** | 2', 3'-cyclic-nucleotide 3'-phosphodiesterase; CNP; CNPase |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CNPase. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100) IHC~~1:100~500 IF/IC~~N/A |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

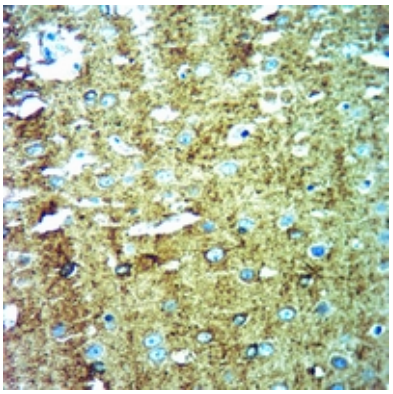
| | |
|---|---|
| **Name** | CNP ( HGNC:2158) |
| **Function** | Myelin-associated enzyme that catalyzes the phosphodiester hydrolysis of 2',3'-cyclic nucleotides to 2'-nucleotides. In the mitochondria, regulates the functioning of the mitochondrial permeability transition pore (mPTP), and thus is involved 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} |

## Images

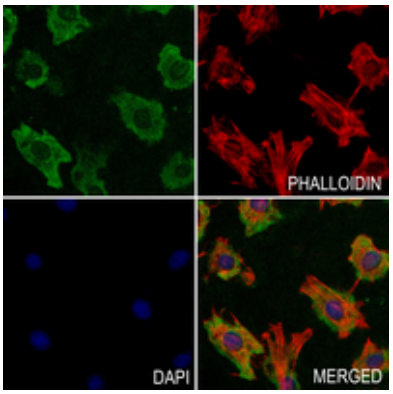
Western blot analysis of CNPase expression in mouse




brain (A), PC12 (B), CT12 (C), SGC7901 (D), K562 (E) whole cell lysates. (Predicted band size: 47 kD; Observed band size: 47 kD)



Immunohistochemical analysis of CNPase staining in rat brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.




Immunofluorescent analysis of CNPase staining in NIH3T3 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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