10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-PRNP Picoband Antibody

Catalog # ABO12469

Specification

Anti-PRNP Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P04156
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Major prion protein(PRNP) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-PRNP Picoband Antibody - Additional Information

Gene ID 5621

Other Names
Major prion protein, PrP, ASCR, PrP27-30, PrP33-35C, CD230, PRNP, ALTPRP, PRIP, PRP

Calculated MW
27661 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, Rat, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Rat, Human

Subcellular Localization
Cell membrane; Lipid-anchor, GPI-anchor. Golgi apparatus. Targeted to lipid rafts via association with the heparan sulfate chains of GPC1. Colocates, in the presence of CU(2+), to vesicles in para- and perinuclear regions, where both proteins undergo internalization. Heparin displaces PRNP from lipid rafts and promotes endocytosis.

Protein Name
Major prion protein

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human PRNP recombinant protein (Position: S143-S230).

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, 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.**

Anti-PRNP Picoband Antibody - Protein Information

Name PRNP

Synonyms ALTPRP, PRIP, PRP

Function
Its primary physiological function is unclear. May play a role in neuronal development and synaptic plasticity. May be required for neuronal myelin sheath maintenance. May promote myelin homeostasis through acting as an agonist for ADGRG6 receptor. May play a role in iron uptake and iron homeostasis. Soluble oligomers are toxic to cultured neuroblastoma cells and induce apoptosis (in vitro) (By similarity). Association with GPC1 (via its heparan sulfate chains) targets PRNP to lipid rafts. Also provides Cu(2+) or Zn(2+) for the ascorbate-mediated GPC1 deaminase degradation of its heparan sulfate side chains (By similarity).

Cellular Location
Cell membrane; Lipid-anchor, GPI-anchor. Golgi apparatus {ECO:0000250|UniProtKB:P04925}. Note=Targeted to lipid rafts via association with the heparan sulfate chains of GPC1. Colocates, in the presence of Cu(2+), to vesicles in para- and perinuclear regions, where both proteins undergo internalization. Heparin displaces PRNP from lipid rafts and promotes endocytosis.

Anti-PRNP Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-PRNP Picoband Antibody - Images

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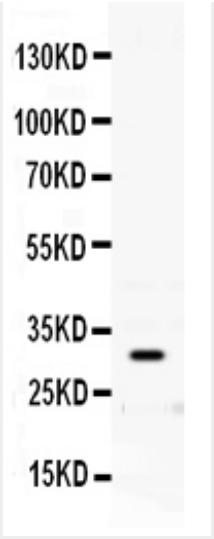
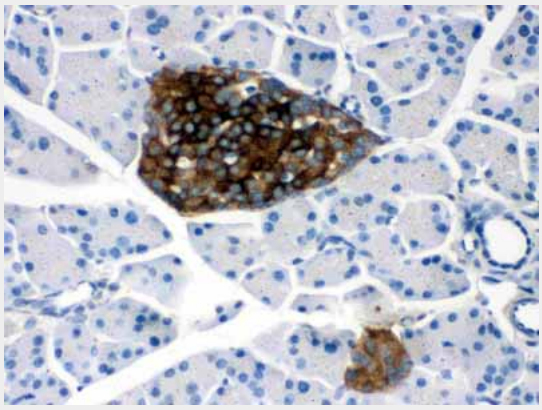
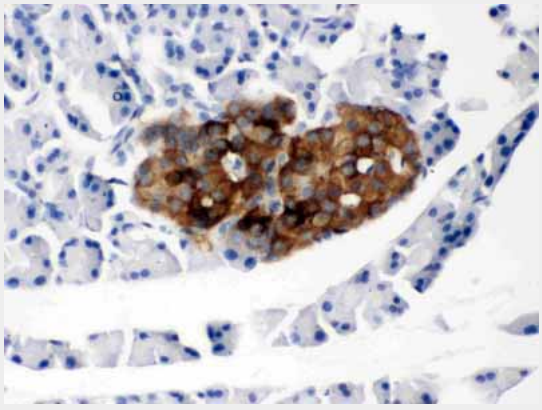


Anti- PRNP Picoband antibody, ABO12469, Western blottingAll lanes: Anti PRNP (ABO12469) at 0.5ug/mlWB: Rat Brain Tissue Lysate at 50ugPredicted bind size: 30KDObserved bind size: 30KD



Anti- PRNP Picoband antibody, ABO12469,IHC(P)IHC(P): Mouse Pancreas Tissue



Anti- PRNP Picoband antibody, ABO12469,IHC(P)IHC(P): Rat Pancreas Tissue

Anti-PRNP Picoband Antibody - Background

PRNP (prion protein), also known as CD230 or PRP, is a protein that in humans is encoded by the PRNP gene. The major prion protein is expressed in the brain and several other tissues. Expression is most predominant in the nervous system but occurs in many other tissues throughout the body. Puckett et al. (1991) identified a RFLP with a high degree of heterozygosity in the 5-prime region of the PRNP gene, which might serve as a useful marker for the pter-p12 region of chromosome 20.

PRNP is associated with a variety of cognitive deficiencies and neurodegenerative diseases such as Creutzfeldt-Jakob disease, bovine spongiform encephalopathy, and kuru. PRNP is highly conserved through mammals, lending credence to application of conclusions from test animals such as mice. Comparison between primates is especially similar, ranging from 92.9-99.6% similarity in amino acid sequences.