

**Anti-PRNP Picoband Antibody**  
Catalog # ABO12469**Specification****Anti-PRNP Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P04156</a>
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. Colocalizes, 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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>N.

**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 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.**

**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).

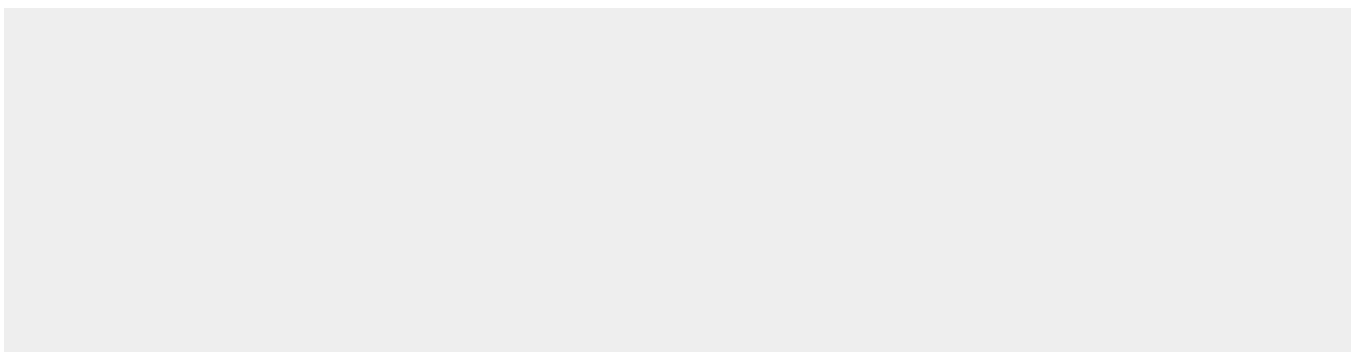
**Cellular Location**

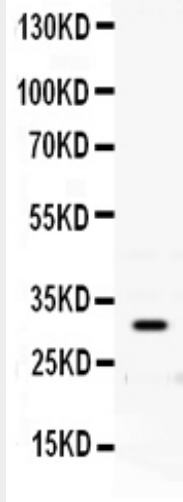
Cell membrane; Lipid-anchor, GPI-anchor. Golgi apparatus {ECO:0000250|UniProtKB:P04925}. Note=Targeted to lipid rafts via association with the heparan sulfate chains of GPC1. Colocates, in the presence of Cu(2+), to vesicles in para- and perinuclear regions, where both proteins undergo internalization.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

**Anti-PRNP Picoband Antibody - Protocols**

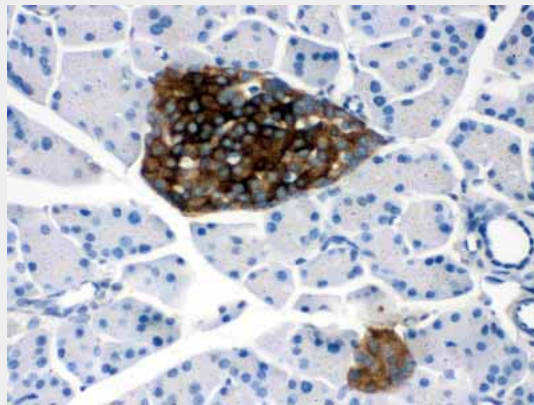
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

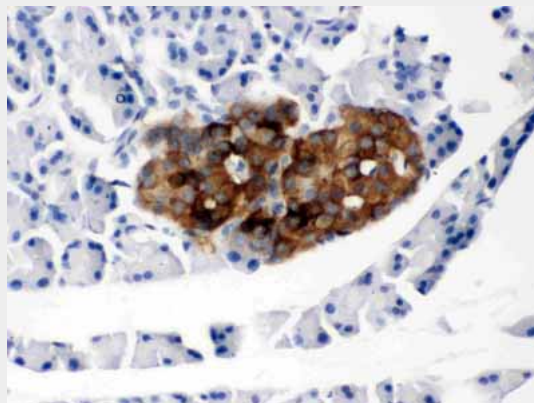
**Anti-PRNP Picoband Antibody - Images**



Anti- PRNP Picoband antibody, ABO12469, Western blotting All lanes: Anti PRNP (ABO12469) at 0.5ug/ml WB: Rat Brain Tissue Lysate at 50ug Predicted bind size: 30KD Observed 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.