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antibody and ELISA experts

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Anti-Prion protein PrP/PRNP Antibody Picoband™

Catalog Number: PB9783

About PRNP

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.

Overview

Product Name	Anti-Prion protein PrP/PRNP Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Prion protein PrP/PRNP Antibody Picoband™ catalog # PB9783. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P04156

Technical Details

Immunogen	E.coli-derived human PRNP recombinant protein (Position: S143-S230).
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, Human, By Heat Western blot, 0.1-0.5ug/ml, Rat, Human

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Anti-Prion protein PrP/PRNP Antibody Picoband™ (PB9783) Images

Figure 1. Western blot analysis of PRNP using anti-PRNP antibody (PB9783).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50 ug of sample under reducing conditions.
Lane 1: Rat Brain Tissue Lysate.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PRNP antigen affinity purified polyclonal antibody (Catalog # PB9783) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PRNP at approximately 30 kDa. The expected band size for PRNP is at 30 kDa.

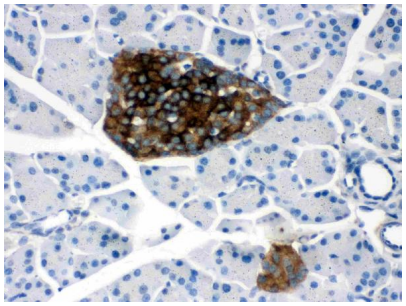

Figure 2. IHC analysis of PRNP using anti-PRNP antibody (PB9783).
PRNP was detected in a paraffin-embedded section of mouse pancreas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-PRNP Antibody (PB9783) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

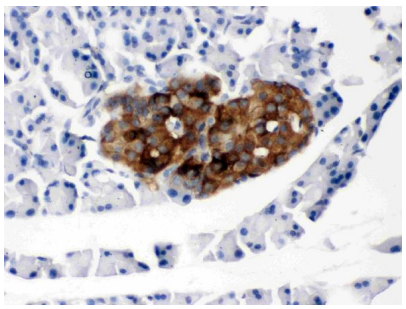

Figure 3. IHC analysis of PRNP using anti-PRNP antibody (PB9783).
PRNP was detected in a paraffin-embedded section of rat pancreas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-PRNP Antibody (PB9783) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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