For Research Use Only

Prion protein PrP Polyclonal antibody

Catalog Number:12555-1-AP 7 Publications

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Basic Information

Catalog Number:
12555-1-AP

Concentration:
500 ug/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG3257

GenBank Accession Number:
BC022532

GeneID (NCBI):
5621

UNIPROT ID:
F7VJQ1

Full Name:
prion protein

Calculated MW:
34 kDa

Observed MW:
30 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:2000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:20-1:200

Applications

Tested Applications:
WB, IHC, FC (Intra), IP, ELISA

Cited Applications:
WB, IHC, IP, CoIP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : mouse brain tissue, human brain tissue, rat brain tissue

IP : mouse brain tissue,

IHC : human gliomas tissue,

Background Information

Prion protein (PRNP) is a ubiquitous membrane glycoprotein whose abnormal self-replicating, misfolded form is widely believed to cause several central nervous system disorders, collectively known as Transmissible Spongiform Encephalopathies (TSE). Prion diseases are TSEs, attributed to conformational conversion of the cellular prion protein (PrPC) into an abnormal conformer that accumulates in the brain. The two isoforms, PrPC and PrPS, have the same primary amino acid sequence and only differ in conformation. While PrPC is composed of 42% α -helix and only 3% β -sheet, PrPSc is composed of 30% α -helix and 43% β -sheet. PrPC converts to its pathogenic isoform when the region corresponding to the residues 108-144 fold into β -sheets. PrPC is very soluble in detergents and easily digested by proteases while the PrPSc is insoluble in detergents and resistant to protease digestion. Prion diseases exist in infectious, sporadic, and genetic forms.

Notable Publications

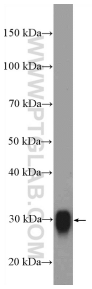
Author	Pubmed ID	Journal	Application
Frank F Heisler	30174115	Neuron	WB,IP
Fei Liu	36003082	Front Mol Biosci	IHC
Yosuke Omae	31020675	Transfusion	WB

Storage

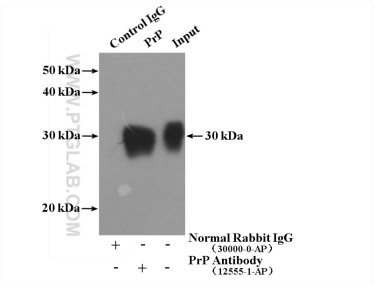
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

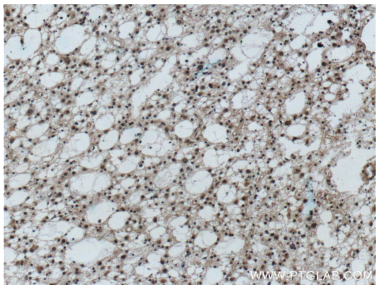
Selected Validation Data



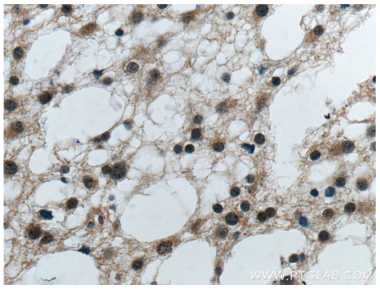
mouse brain tissue were subjected to SDS PAGE followed by western blot with 12555-1-AP (PrP Antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



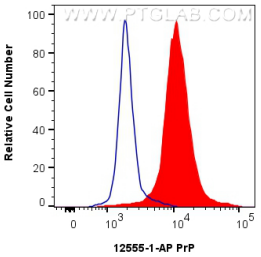
IP result of anti-PrP (IP:12555-1-AP, 4ug; Detection:12555-1-AP 1:1000) with mouse brain tissue lysate 4000ug.



Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 12555-1-AP (PrP Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 12555-1-AP (PrP Antibody) at dilution of 1:200 (under 40x lens).



1x10^6 SH-SY5Y cells were intracellularly stained with 0.4 ug Anti-Human PrP (12555-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).