abcam

ab61409

Anti-Prion protein PrP antibody [8H4]

Anti-Prion protein PrP antibody [8H4] (ab61409) is a mouse monoclonal antibody detecting Prion protein PrP in **Western Blot, Flow Cytometry, IP, IHC-P, ELISA**. Suitable for **Cow, Human, Monkey, Mouse, Rat, Sheep**.

- Over 10 publications
- Trusted since 2007

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Mouse Prnp. Database link P04925
Clone number	8H4
Purity	IgG fraction
Epitope	The antibody epitope resides within amino acids 145-180 of human Prion protein PrP.
Concentration	1.7 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified Immunoglobulin

Reactivity data

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human, Rat, Cow, Monkey, Sheep
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC

Expected

Species	Mouse, Rat, Monkey, Human, Cow, Sheep
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Expected

Species	Mouse, Rat, Monkey, Human, Cow, Sheep
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Expected

Species	Mouse
Dilution info	-
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Species	Monkey
Dilution info	-
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Species	Cow
Dilution info	-
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Species	Sheep
Dilution info	-
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

IHC-P

Expected

Species	Mouse, Rat, Monkey, Human, Cow, Sheep
Dilution info	Use at an assay dependent concentration.
Notes	-

I-ELISA

Expected

Species	Mouse, Rat, Monkey, Human, Cow, Sheep

Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information PRNP

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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Prion protein PrP antibody [8H4] (ab61409) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), ELISA in Cow, Human, Monkey, Mouse, Rat, Sheep samples.

Trusted by the scientific community
Anti-Prion protein PrP [8H4] (ab61409) was first used in a scientific publication in 2007 and has been cited over 10 times in peer-reviewed journals.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Prion protein also known as PrP or major prion protein plays a mechanical role in the normal functioning of brain cells. It is a glycoprotein with a flexible structure and has an approximate mass of 35-36 kDa. PrP expression is high in nervous tissue. It is present in neurons and glial cells but also surfaces in other tissues like heart and kidney. Alternate names like p-pr-p and f89 refer to specific conformations or studies related to its structure.
Biological function summary	Prion protein assists in maintaining normal cell activities. Researchers do not fully understand its exact biological role but it might be involved in copper ion uptake and protection against oxidative stress. PrP can form complexes with other cellular proteins some of which help in routing signals inside the cell. Additionally prion protein may have synaptic functions related to neurodevelopment and neuroprotection.
Pathways	Prion protein links to both neuroprotective and neurodegenerative pathways. It participates in signaling pathways that protect neurons from apoptosis. This protein associates closely with copper-dependent pathways possibly related to its capacity to bind copper ions which affects oxidative stress responses. Prion protein also interacts with proteins like synapsin to modulate synaptic transmission.
Associated diseases and disorders	Prion protein is directly related to prion diseases such as Creutzfeldt-Jakob disease and kuru. These diseases arise from misfolded forms of PrP which aggregate and cause neurodegeneration. The misfolded form referred to as PrP^Sc can induce normal PrP to misfold propagating disease. Dopamine receptor proteins and synaptic proteins can indirectly interact or be affected in these disorders highlighting a complex network of affected neural functions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

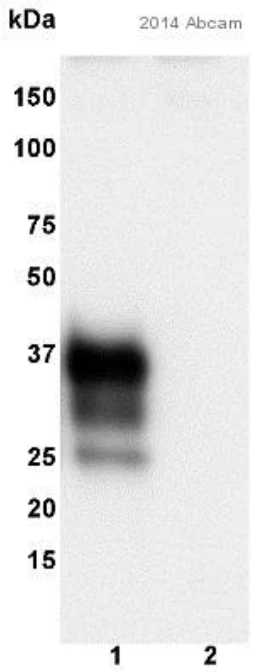
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



This image is courtesy of an anonymous customer review

Western blot - Anti-Prion protein PrP antibody [8H4] (ab61409)

All lanes:
Western blot - Anti-Prion protein PrP antibody [8H4] (ab61409) at 1/2500 dilution

Lane 1:
Wild type mouse hippocampus whole tissue lysate at 30 µg

Lane 2:
Prnp-/- mouse hippocampus whole tissue lysate at 30 µg

Secondary

All lanes:
HRP-conjugated sheep anti-mouse IgG monoclonal at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 28 kDa

Observed band size: 25-37 kDa

Exposure time: 30s

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