

**PRNP (D3Q5C) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H M R	Endogenous	20-40	Rabbit IgG	#P04156	5621

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunofluorescence (Immunocytochemistry)

**Dilution**

1:1000  
1:50  
1:200

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

PRNP (D3Q5C) Rabbit mAb recognizes endogenous levels of total PRNP protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser222 of human PRNP protein.

**Background**

The *PRNP* gene encodes the major prion protein (PrP, CD230), a widely-expressed glycoprotein expressed at high levels in the central nervous system (1). While the typical cellular function of PrP is not well defined, it is a putative antioxidant and a metal-binding protein that may be involved in signal transduction (2). Prion proteins can adopt different conformations; the cellular PrP<sup>c</sup> prion protein may be converted following translation into the  $\beta$ -sheet-rich scrapie isoform (PrP<sup>sc</sup>) responsible for several prion diseases, including bovine spongiform encephalopathy and human Creutzfeldt-Jakob disease (3). Unlike most neurodegenerative diseases, prion diseases are infectious as prions are capable of propagating by conferring an abnormally folded state onto properly folded cellular proteins (3). In addition, the cellular PrP<sup>c</sup> has may be involved in  $\beta$ -amyloid peptide oligomerization and synaptic toxicity (4).

**Background References**

1. Martins, V.R. et al. (2002) *FEBS Lett* 512, 25-8.
2. Chiarini, L.B. et al. (2002) *EMBO J* 21, 3317-26.
3. Prusiner, S.B. (1998) *Proc Natl Acad Sci U S A* 95, 13363-83.
4. Kudo, W. et al. (2013) *Prion* 7, 114-6.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat

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