

Store at
-20C
#85971**PLP1 Antibody**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	20-30	Rabbit	#P60201	5354

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

PLP1 Antibody recognizes endogenous levels of total PLP1 protein.

Species predicted to react based on 100% sequence homology

Pig, Guinea Pig

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human PLP1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Myelin proteolipid protein (PLP1) corresponds to the majority of myelin proteins in the CNS, providing support to axons and modulating the axonal growth (1). DM20 is the result of the alternative splicing of the *plp1* gene, which is linked to oligodendrocyte differentiation and survival. The imbalance of PLP1/DM20 is linked to Pelizaeus-Merzbacher disease (2,3), including mitochondrial damage (4). In addition, PLP1, but not DM20, can enter the mitochondria and participate in the metabolism of cells (5).

Background References

1. Thomson, C.E. et al. *Dev Neurosci* 27, 27-36.
2. Laššuthová, P. et al. (2014) *J Child Neurol* 29, 924-31.
3. Dhaunchak, A.S. et al. (2011) *J Neurosci* 31, 14961-71.
4. Ruiz, M. et al. (2017) *Brain Pathol* 28, 611-630. doi: 10.1111/bpa.12571. Epub 2017 Dec 26.
5. Somayajulu, M. et al. (2018) *Neurosci Lett* 678, 90-8.

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 BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

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

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