

**LINGO-1 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	98	Rabbit	#Q96FE5	84894

**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**

LINGO-1 Antibody recognizes endogenous levels of total LINGO-1 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu400 of human LINGO-1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Leucine-rich repeat and immunoglobulin domain-containing protein 1 (LINGO-1) is a potent negative modulator of neuronal processes, including neuronal survival, axonal integrity, oligodendrocyte differentiation, and myelination (1-5). LINGO-1, Nogo receptor (NgR), and p75 neurotrophin receptor (p75NTR), or TNF receptor orphan Y (TROY) form a tripartite receptor complex, which activates RhoA/ROCK signaling and is responsible for the inhibition effect of myelin-associated factors (6,7). LINGO-1 is abundantly expressed in the brain and is implicated in various neurodegenerative disorders, such as Essential tremor, multiple sclerosis, and Parkinson's disease (8-11). Recently, LINGO-1 was reported to bind directly to amyloid precursor protein (APP), promoting its degradation through lysosomal proteolysis (12). This research study implicated that LINGO-1 plays a critical role in the pathophysiology of Alzheimer's disease.

**Background References**

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3. Zhang, Z. et al. (2009) *J Biol Chem* 284, 15717-28.
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5. Lee, X. et al. (2014) *Mol Cell Neurosci* 60, 36-42.
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8. Inoue, H. et al. (2007) *Proc Natl Acad Sci U S A* 104, 14430-5.
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11. Andrews, J.L. and Fernandez-Enright, F. (2015) *Neurosci Biobehav Rev* 56, 97-114.
12. de Laat, R. et al. (2015) *Pathobiol Aging Age Relat Dis* 5, 25796.

**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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