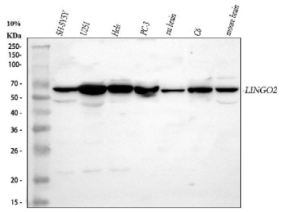
LINGO2 Antibody / Leucine-rich repeat and immunoglobulin-like domain-containing protein 2 (FY13048)

Catalog No.	Formulation	Size
FY13048	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q7L985
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This LINGO2 antibody is available for research use only.



Western blot analysis of LINGO2 using anti-LINGO2 antibody. Lane 1: human SH-SY5Y whole cell lysates, Lane 2: human U251 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human PC-3 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat C6 whole cell lysates, Lane 7: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-LINGO2 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A specific band was detected for LINGO2 at approximately 68 kDa. The expected molecular weight of LINGO2 is ~68 kDa.

Description

LINGO2 antibody detects Leucine-rich repeat and immunoglobulin-like domain-containing protein 2, a transmembrane signaling protein implicated in nervous system development, axon guidance, and neuroprotection. The UniProt

recommended name is Leucine-rich repeat and immunoglobulin-like domain-containing protein 2 (LINGO2). This glycoprotein is a member of the LINGO family, known for modulating axonal growth and synaptic plasticity through receptor complex formation.

Functionally, LINGO2 antibody identifies a 619-amino-acid membrane protein containing multiple leucine-rich repeats (LRRs) and an immunoglobulin-like domain. LINGO2 localizes primarily to neurons and glial cells, where it regulates axon regeneration and myelination processes. It functions as a negative regulator of neurite outgrowth and participates in receptor signaling complexes involving Nogo receptors (NgR) and co-receptors such as p75NTR and LINGO1.

The LINGO2 gene is located on chromosome 9q21.1 and encodes a protein expressed in brain regions including the cerebral cortex, cerebellum, and hippocampus. LINGO2 contributes to synaptic organization and neural circuit refinement, influencing learning and sensory processing. Beyond the central nervous system, it is expressed in the gastrointestinal tract and epithelial tissues, suggesting broader roles in cell communication and barrier integrity.

Genetic studies have linked variants in LINGO2 to neurological and metabolic disorders, including essential tremor, Parkinson's disease, and obesity. These associations suggest that LINGO2 modulates neurotrophic signaling and energy regulation. Its expression pattern overlaps with key neuronal regulators involved in synaptic maintenance, highlighting its importance in neuronal homeostasis and repair.

LINGO2 antibody is widely used in neurobiology, developmental biology, and receptor signaling research. It is suitable for immunohistochemistry, immunofluorescence, and western blotting to detect LINGO2 expression in neural tissues. This antibody supports studies of axon regeneration, neuronal receptor complexes, and synaptic plasticity. In translational research, LINGO2 is investigated as a potential target for neurodegenerative and metabolic diseases.

Structurally, LINGO2 features an extracellular LRR domain forming a horseshoe-like solenoid shape that mediates protein-protein interactions, and a single-pass transmembrane domain anchoring it to the plasma membrane. NSJ Bioreagents provides LINGO2 antibody reagents validated for use in neurodevelopment, receptor signaling, and neurodegenerative disease research.

Application Notes

Optimal dilution of the LINGO2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human LINGO2 recombinant protein (Position: C28-R513) was used as the immunogen for the LINGO2 antibody.

Storage

After reconstitution, the LINGO2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.