abcam

Product datasheet

Anti-Lingo1 antibody ab23631

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Overview

Product name	Anti-Lingo1 antibody
Description	Rabbit polyclonal to Lingo1
Host species	Rabbit
Specificity	Rabbit polyclonal to Lingo1 (ab23631) detects Lingo1 protein at ~83kDa in mouse and human brain lysates. This band is larger than predicted on Swiss Prot (69kDa; Q9D1T0) possibly due to post-translational modification and is consistent with published literature on Lingo1 protein detection in brain lysate. The strong band observed at ~ 17kDa in the mouse brain lysate (lane 1) corresponds to a cleavage fragment of Lingo1 (Swiss Prot IDs: Q3TQJ4)
Tested applications	**Suitable for:** WB, ICC/IF, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Chicken
Immunogen	Synthetic peptide corresponding to Human Lingo1 aa 600 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab25890**)
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab23631 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ **(1)**	Use a concentration of 1 µg/ml. Detects a band of approximately 83 kDa (predicted molecular weight: 83 kDa).
ICC/IF		Use a concentration of 5 µg/ml.
IP		Use at an assay dependent concentration.

Target

Function Functional component of the Nogo receptor signaling complex (RTN4R/NGFR) in RhoA activation responsible for some inhibition of axonal regeneration by myelin-associated factors. Is also an important negative regulator of oligodentrocyte differentiation and axonal myelination. Acts in conjunction with RTN4 and RTN4R in regulating neuronal precursor cell motility during cortical development.

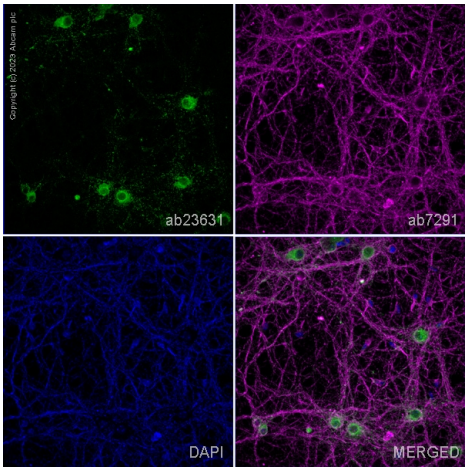
Tissue specificity Expressed exclusively in the central nervous system. Highest level in the in amygdala, hippocampus, thalamus and cerebral cortex. In the rest of the brain a basal expression seems to be always present. Up-regulated in substantia nigra neurons from Parkinson disease patients.

Sequence similarities Contains 1 Ig-like C2-type (immunoglobulin-like) domain.
Contains 11 LRR (leucine-rich) repeats.
Contains 1 LRRCT domain.
Contains 1 LRRNT domain.

Post-translational modifications N-glycosylated. Contains predominantly high-mannose glycans.

Cellular localization Cell membrane.

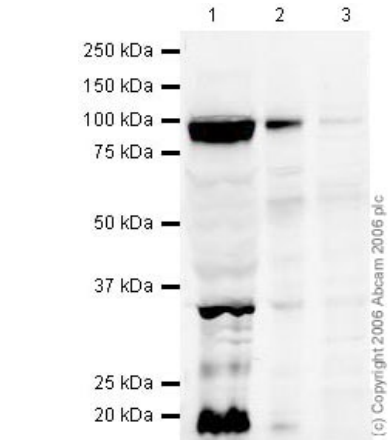
Images



Immunocytochemistry/ Immunofluorescence - Anti-Lingo1 antibody (ab23631)

ab23631 staining Lingo1 in Ms Hippocampal Neurons E18 DIV14 cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab23631 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-Lingo1 antibody (ab23631)

All lanes : Anti-Lingo1 antibody (ab23631) at 1 µg/ml

Lane 1 : Mouse brain
Lane 2 : Mouse brain tissue lysate - total protein (0 days) (**ab7188**)
Lane 3 : Human Brain Tissue Lysate

Lysates/proteins at 20 µg per lane.

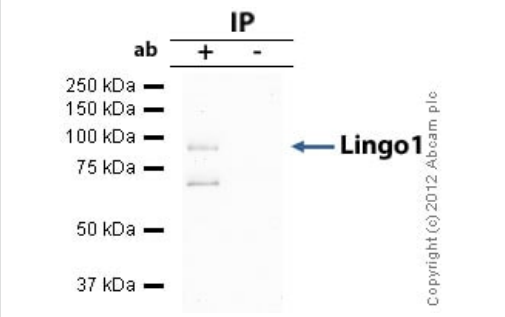
Secondary
All lanes : Rabbit IgG secondary antibody (**ab28446**) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 83 kDa
Observed band size: 83 kDa
Additional bands at: 17 kDa (possible cleavage fragment), 34 kDa (possible degradation product)

Rabbit polyclonal to Lingo1 (ab23631) detects Lingo1 protein at

~83kDa in mouse and human brain lysates. This band is larger than predicted on Swiss Prot (69kDa; Q9D1T0) possibly due to post-translational modifications and is consistent with published literature on Lingo1 protein detection in brain lysate. The strong band observed at ~ 17kDa in the mouse brain lysate (lane 1) corresponds to a cleavage fragment of Lingo1 (Swiss Prot IDs: Q3TQJ4)



Immunoprecipitation - Anti-Lingo1 antibody (ab23631)

Lingo1 was immunoprecipitated using 0.5mg Mouse Brain whole tissue lysate, 5µg of Rabbit polyclonal to Lingo1 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-). The antibody was incubated under agitation with Protein G beads for 10min, Mouse Brain whole tissue lysate lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70^{o}C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab23631.
Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (**ab99697**).
Band: 83kDa:Lingo1; non specific - 70kDa: We are unsure as to the identity of this extra band.

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