

Anti-Lefty antibody ab22569

★★★★★ [2 Abreviews](#) [7 References](#) [2 Images](#)

Overview

Product name	Anti-Lefty antibody
Description	Rabbit polyclonal to Lefty
Host species	Rabbit
Specificity	This antibody has been tested against recombinant protein only (human LeftyA and mouse Lefty1). It is expected to cross react with Human LeftyB as there is 100% homology of the immunogen with Human LeftyB.
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Mouse, Human, Recombinant fragment
Immunogen	Synthetic peptide corresponding to Human Lefty aa 350 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as ab25701 , ab25702)
Positive control	ICC/IF: mES cells.
General notes	<p>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.</p> <p>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</p>

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	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p> <p>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.</p>

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab22569 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 44,38,34 kDa (predicted molecular weight: 41 kDa).
ICC/IF		Use a concentration of 1 µg/ml.

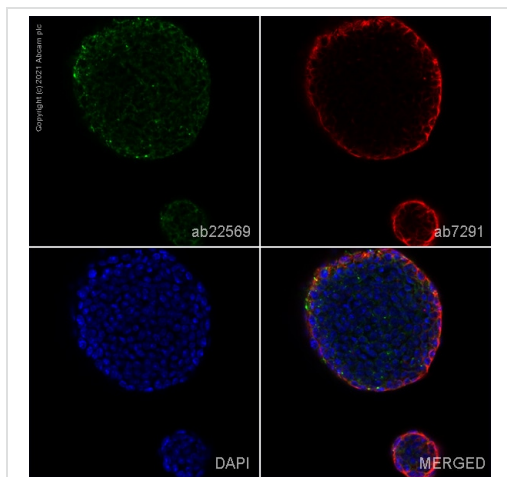
Target

Relevance

During vertebrate embryogenesis, a left right axis is established. Secreted growth factors of the TGF beta family, including gene products derived from nodal, lefty 1 and lefty 2, play crucial roles in establishing left right asymmetries. TGF beta (Transforming growth factor beta) is a pleiotropic cytokine that regulates growth and differentiation of diverse types of cells. TGF beta actions are directed by ligand induced activation of TGF beta receptors. Complexes formed move into the nucleus, where they act as components of a transcriptional complex. Lefty, a novel member of the TGF beta superfamily, inhibits TGF beta signaling. Lefty acts to inhibit phosphorylation of Smad2 following activation of the TGF beta receptor. Lefty also inhibits events downstream from R Smad phosphorylation. Lefty provides a repressed state of TGF beta responsive genes. The Lefty family is comprised of Lefty 1 and Lefty 2 in mouse, and Lefty A and Lefty B in humans. Members of the TGF beta superfamily require processing for their activation. Cleavage is therefore an essential step for Lefty activation. Lefty is synthesized as a large inactive precursor (41 Kda) that must be endoproteolytically processed to release the bioactive polypeptide (28 kDa and 34 kDa forms). The 28kDa form induces MAPK activity.

Cellular localization Secreted

Images

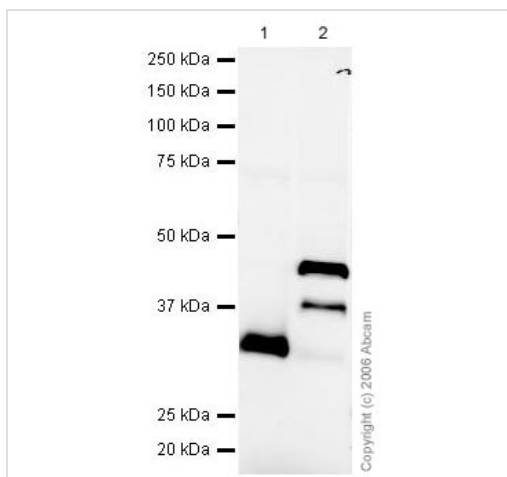


Immunocytochemistry/ Immunofluorescence - Anti-Lefty antibody (ab22569)

ab22569 staining Lefty in mES cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 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 ab22569 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 red). Nuclear DNA was labelled with DAPI (shown in blue).

Also suitable in cells fixed with 4% paraformaldehyde (10 min).

Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.



Western blot - Anti-Lefty antibody (ab22569)

All lanes : Anti-Lefty antibody (ab22569) at 1 µg/ml

Lane 1 : Mouse Lefty1 Recombinant Protein

Lane 2 : Human LeftyA Recombinant Protein

Lysates/proteins at 0.01 µg per lane.

Secondary

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

Predicted band size: 41 kDa

Observed band size: 34,38,44 kDa

The mouse recombinant Lefty protein consists of two bands of ~34 and 12 kDa. Of these, ab22569 recognises the 34 kDa band. The

human recombinant Lefty protein consists of three bands of 44, 38 and 34 kDa. Of these, the first two are recognised by ab22569. The protein sizes differ from the expected molecular weight of Lefty due to proteolytic processing and glycosylation.

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