abcam

Product datasheet

Anti-Noggin antibody ab16054

8 Abreviews 25 References 6 Images

Overview

Product name	Anti-Noggin antibody
Description	Rabbit polyclonal to Noggin
Host species	Rabbit
Specificity	From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help. You may also be interested in our alternative recombinant antibody, **ab124977**.
Tested applications	**Suitable for:** IHC-P, WB **Unsuitable for:** IHC-Fr
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Horse, Chicken, Xenopus laevis
Immunogen	Synthetic peptide corresponding to Human Noggin aa 1-100 (internal sequence) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab16380**)
Positive control	This antibody gave a positive signal in both Human and Mouse Noggin Recombinant protein.
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 ab16054 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
IHC-P	(4)	1/175. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.
WB	(2)	Use a concentration of 1 µg/ml. Detects a band of approximately 26, 35 kDa (predicted molecular weight: 26 kDa).

Application notes Is unsuitable for IHC-Fr.

Target

Function Essential for cartilage morphogenesis and joint formation. Inhibitor of bone morphogenetic proteins (BMP) signaling which is required for growth and patterning of the neural tube and somite.

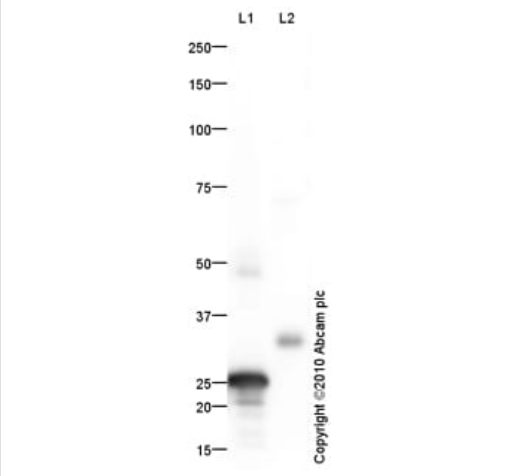
Involvement in disease Defects in NOG are a cause of symphalangism proximal syndrome (SYM1) [MIM:185800]. SYM1 is characterized by the hereditary absence of the proximal interphalangeal (PIP) joints (Cushing symphalangism). Severity of PIP joint involvement diminishes towards the radial side. Distal interphalangeal joints are less frequently involved and metacarpophalangeal joints are rarely affected whereas carpal bone malformation and fusion are common. In the lower extremities, tarsal bone coalition is common. Conducive hearing loss is seen and is due to fusion of the stapes to the petrous part of the temporal bone.
Defects in NOG are the cause of multiple synostoses syndrome type 1 (SYNS1) [MIM:186500]; also known as synostoses, multiple, with brachydactyly/symphalangism-brachydactyly syndrome. SYNS1 is characterized by tubular-shaped (hemicylindrical) nose with lack of alar flare, otosclerotic deafness, and multiple progressive joint fusions commencing in the hand. The joint fusions are progressive, commencing in the fifth proximal interphalangeal joint in early childhood (or at birth in some individuals) and progressing in an ulnar-to-radial and proximal-to-distal direction. With increasing age, ankylosis of other joints, including the cervical vertebrae, hips, and humeroradial joints, develop.
Defects in NOG are the cause of tarsal-carpal coalition syndrome (TCC) [MIM:186570]. TCC is an autosomal dominant disorder characterized by fusion of the carpals, tarsals and phalanges, short first metacarpals causing brachydactyly, and humeroradial fusion. TCC is allelic to SYM1, and different mutations in NOG can result in either TCC or SYM1 in different families.
Defects in NOG are a cause of stapes ankylosis with broad thumb and toes (SABTS)

[MIM:184460]; also known as Teunissen-Cremers syndrome. SABTS is a congenital autosomal dominant disorder that includes hyperopia, a hemicylindrical nose, broad thumbs, great toes, and other minor skeletal anomalies but lacked carpal and tarsal fusion and symphalangism. Defects in NOG are the cause of brachydactyly type B2 (BDB2) [MIM:611377]. BDB2 is a subtype of brachydactyly characterized by hypoplasia/aplasia of distal phalanges in combination with distal symphalangism, fusion of carpal/tarsal bones, and partial cutaneous syndactyly.

Sequence similarities Belongs to the noggin family.

Cellular localization Secreted.

Images



Western blot - Anti-Noggin antibody (ab16054)

All lanes : Anti-Noggin antibody (ab16054) at 1 µg/ml

Lane 1 : Noggin Human Recombinant Protein
Lane 2 : Noggin Mouse Recombinant Protein

Lysates/proteins at 0.1 µg per lane.

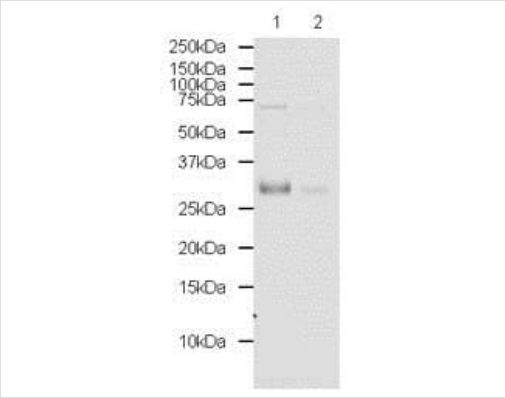
Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 26 kDa
Observed band size: 26,35 kDa

Exposure time: 1 minute



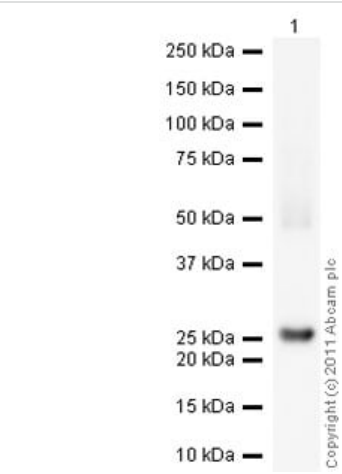
Western blot - Anti-Noggin antibody (ab16054)

All lanes : Anti-Noggin antibody (ab16054) at 1 µg/ml

Lane 1 : Noggin Mouse Recombinant Protein
Lane 2 : Noggin Mouse Recombinant Protein with Human Noggin peptide (**ab16380**) at 1 µg/ml

Lysates/proteins at 0.01 µg per lane.

Predicted band size: 26 kDa



Western blot - Anti-Noggin antibody (ab16054)

Anti-Noggin antibody (ab16054) at 1 µg/ml + Recombinant human Noggin protein (**ab73756**) at 1 µg

Secondary

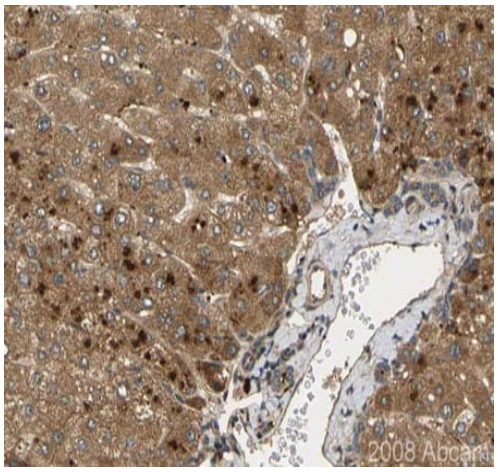
Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

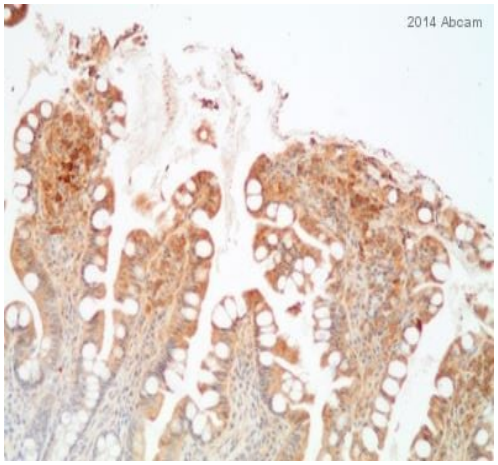
Predicted band size: 26 kDa

Exposure time: 4 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Noggin antibody (ab16054)

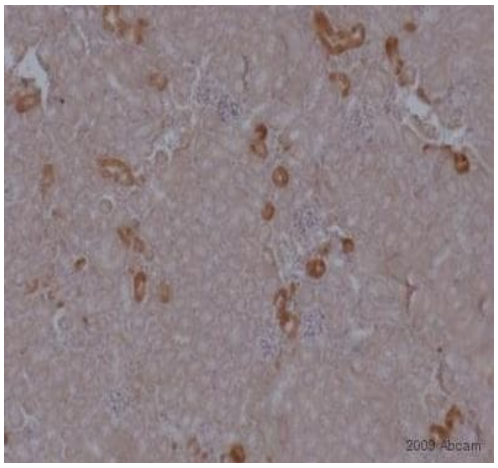
ab16054 stainning Noggin in paraffin-embedded human liver tissue, showing a cytoplasmic and/or membranous distribution in both hepatocytes and bile duct cells. Paraffin embedded tissue was incubated with ab16054 (1/175 dilution) for 30 minutes at room temperature. Antigen retrieval was performed by heat induction in citrate buffer pH 6. ab16054 was tested in a tissue microarray (TMA) containing a wide range of normal and cancer tissues as well as a cell microarray consisting of a range of commonly used, well characterised human cell lines.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Noggin antibody (ab16054)

This image is courtesy of an anonymous Abreview.

Immunohistochemical analysis of human small intestine tissue, labeling Noggin with ab16054. Tissue was formaldehyde fixed, treated with EDTA (pH 8.6) at 100°C for 20 minutes for heat-mediated antigen retrieval and blocked with 3% Hydrogen Peroxide for 10 minutes at 25°C. Incubation with ab16054 (diluted 1/400) was performed for 20 minutes at 25°C.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Noggin antibody (ab16054)

This image is courtesy of an anonymous Abreview.

Immunohistochemical analysis of mouse kidney tissue, labeling Noggin with ab16054. Tissue was paraformaldehyde fixed, treated with Citrate buffer for heat-mediated antigen retrieval and blocked with Serum Free Protein Block for 20 minutes. Incubation with ab16054 (diluted 1/2500) was performed for 15 hours at 4°C

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