


Product datasheet

Anti-ALK-1 antibody ab68703

★★★★★ [1 Abreviews](#) [2 References](#) [4 Images](#)

Overview

Product name	Anti-ALK-1 antibody
Description	Rabbit polyclonal to ALK-1
Host species	Rabbit
Tested applications	Suitable for: IHC-P, IP, ICC/IF, WB
Species reactivity	Reacts with: Human Predicted to work with: Non human primates 
Immunogen	Synthetic peptide corresponding to Human ALK-1 aa 50-150 (internal sequence) conjugated to keyhole limpet haemocyanin. (Peptide available as ab86637)
Positive control	This antibody gave a positive signal in the following whole cell lysates: K562, MCF7.
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	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

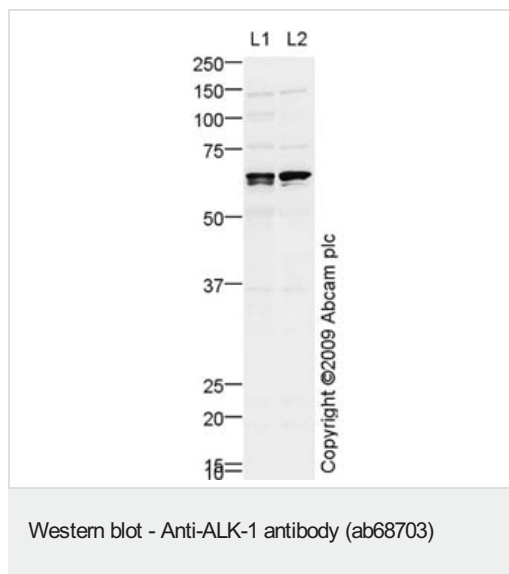
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab68703 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
IP		Use a concentration of 5 µg/ml.
ICC/IF		Use a concentration of 5 µg/ml.
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 62 kDa (predicted molecular weight: 56 kDa).

Target

Function	On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for TGF-beta. May bind activin as well.
Involvement in disease	Defects in ACVRL1 are the cause of hereditary hemorrhagic telangiectasia type 2 (HHT2) [MIM:600376]; also known as Osler-Rendu-Weber syndrome 2 (ORW2). HHT2 is an autosomal dominant multisystemic vascular dysplasia, characterized by recurrent epistaxis, muco-cutaneous telangiectases, gastro-intestinal hemorrhage, and pulmonary, cerebral and hepatic arteriovenous malformations; all secondary manifestations of the underlying vascular dysplasia.
Sequence similarities	Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily. Contains 1 GS domain. Contains 1 protein kinase domain.
Cellular localization	Membrane.

Images



All lanes : Anti-ALK-1 antibody (ab68703) at 1 µg/ml

Lane 1 : K562 (Human erythromyeloblastoid leukemia cell line)
Whole Cell Lysate

Lane 2 : MCF7 (Human breast adenocarcinoma cell line) Whole
Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

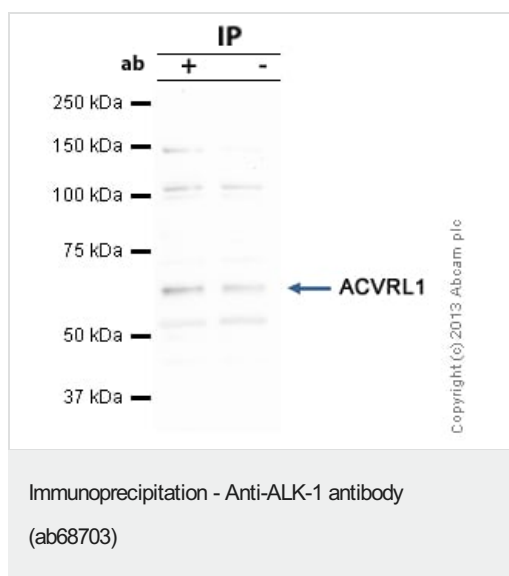
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed
(HRP) at 1/3000 dilution

Developed using the ECL technique.

Predicted band size: 56 kDa

Observed band size: 62 kDa

ALK-1 contains a number of potential glycosylation and phosphorylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.



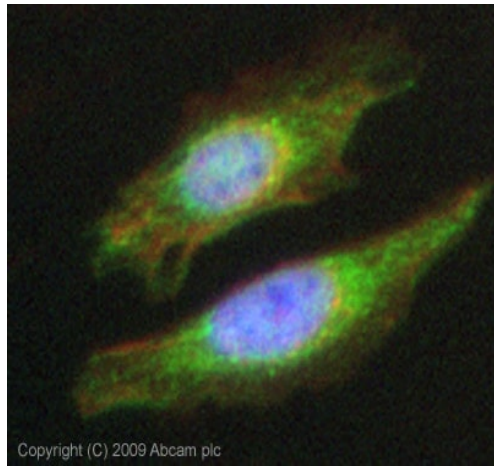
ALK-1 was immunoprecipitated using 0.5mg K562 whole cell extract, 5µg of Rabbit polyclonal to ALK-1 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, K562 whole cell extract 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°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab68703.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) ([ab99697](#)).

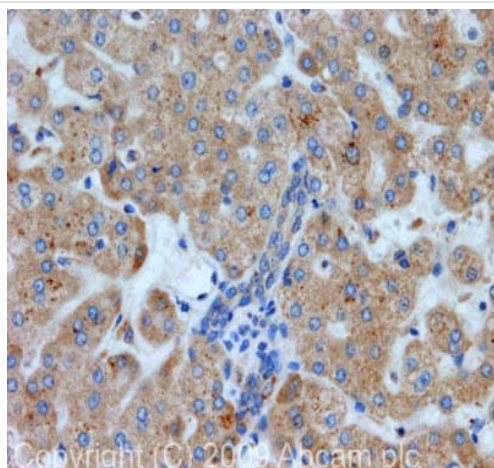
Band: 62kDa; ALK-1, non specific - as present in control (lane 2);
We are confident this was due to slight lane contamination and the band seen in the IP lane is our target of interest.



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Immunocytochemistry/ Immunofluorescence - Anti-ALK-1 antibody (ab68703)

ICC/IF image of ab68703 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab68703, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. This antibody also gave a positive result in 100% methanol fixed (5 min) HepG2 and MCF7 cells at 5µg/ml.



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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALK-1 antibody (ab68703)

IHC image of ALK-1 staining in normal human liver formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab68703, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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