abcam

ab263863

Anti-ALK-1 antibody [EPR22985-125]

Recombinant | RabMAb

Key facts

Isotype	IgG1
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR22985-125
Purification technique	Affinity purification Protein A
Concentration	0.523 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Target data

See full target information Acvrl1

Function	Type I receptor for TGF-beta family ligands BMP9/GDF2 and BMP10 and important regulator of normal blood vessel development. 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. May bind activin as well.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	ALK-1 also known as ACVRL1 or ALK1 protein is a receptor serine/threonine kinase with a molecular mass of approximately 55 kDa. It plays an important role in the TGF-beta superfamily signaling particularly in angiogenesis and blood vessel development. Expressed mainly in endothelial cells ALK-1 mediates cellular responses essential for maintaining vascular stability. The careful balance of its signaling is necessary indicating its importance in physiological conditions.
Biological function summary	The function of ALK-1 extends to the formation and maintenance of vascular endothelium as part of the larger receptor complex. It interacts with ligands such as BMP9 and BMP10 which regulate endothelial cell proliferation and differentiation. ALK-1's role as part of this receptor complex highlights its involvement in controlling the fine balance between angiogenic and anti-

	angiogenic processes. Its biological activity is vital for healthy vascular development and homeostasis.
Pathways	ALK-1 activation is a part of the BMP signaling pathway a branch of the larger TGF-beta pathway. This pathway is significant in various cellular processes including growth and differentiation. ALK-1 interacts with other signalling mediators like SMAD1/5/8 proteins which translocate to the nucleus to affect gene expression. Connecting with these pathways ALK-1 aligns closely with ACVR2A and ENG (Endoglin) which further highlight its role in vascular biology.
Associated diseases and disorders	ALK-1 mutations or dysregulation leads to conditions such as hereditary hemorrhagic telangiectasia (HHT) and pulmonary arterial hypertension (PAH). These conditions showcase the important role ALK-1 plays in vascular integrity and signaling. ALK-1 is connected to disorders through interactions with proteins such as ENG further highlighting its involvement in vascular-related pathologies. Maintaining precise ALK-1 function is pivotal to preventing these disorders indicating its potential as a therapeutic target or biomarker.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

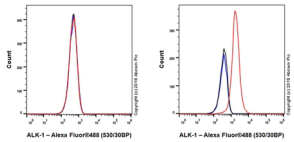
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - Anti-ALK-1 antibody [EPR22985-125] (ab263863)

ALK-1 Flow Cytometry staining using rabbit Anti-ALK-1 antibody

Flow cytometric analysis of MEF (Mouse embryonic fibroblast (immortalized)) cells (Left) / bEnd.3 (mouse brain endothelioma) cells (Right) cells labelling ALK-1 with ab263863 at 1/500 compared with a Rabbit monoclonal IgG (ab172730) isotype control (Black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 was used as the secondary antibody.
Negative control: MEF (PMID: 11927558).

Gated on viable cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.