

Rabbit ALK-1/ACVRL1 Polyclonal Antibody | anti-ACVRL1 antibody

Anti-ALK-1/ACVRL1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19242	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

ALK-1/ACVRL1; Polyclonal Antibody; Anti-ALK-1/ACVRL1 Antibody; ACVRL1; ACVRLK1; ALK1; Serine/threonine-protein kinase receptor R3; SKR3; EC 2. 7. 11. 30; Activin receptor-like kinase 1; ALK-1; TGF-B superfamily receptor type I; TSR-I ; activin A receptor like type 1; anti-ACVRL1 antibody

PRODUCT SPECIFICATIONS

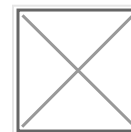
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for ALK-1/ACVRL1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-ACVRL1 antibody	WB (Western Blot), IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.25-0.5ug/ml Human, Mouse, Rat IHC-P: 2-5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human ALK-1/ACVRL1 recombinant protein (Position: T271-L362).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of MCF-7 cells using anti-ALK-1/ACVRL1 antibody (AAA19242). Overlay histogram showing MCF-7 cells stained with AAA19242 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ALK-1/ACVRL1 Antibody (AAA19242, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



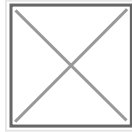
IHC (Immunohistochemistry)

Figure 5. IHC analysis of ALK-1/ACVRL1 using anti-ALK-1/ACVRL1 antibody (AAA19242). ALK-1/ACVRL1 was detected in paraffin-embedded section of human ovarian serous adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-ALK-1/ACVRL1 Antibody (AAA19242) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



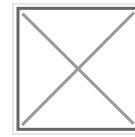
IHC (Immunohistochemistry)

Figure 4. IHC analysis of ALK-1/ACVRL1 using anti-ALK-1/ACVRL1 antibody (AAA19242). ALK-1/ACVRL1 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-ALK-1/ACVRL1 Antibody (AAA19242) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



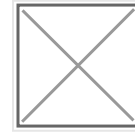
IHC (Immunohistochemistry)

Figure 2. IHC analysis of ALK-1/ACVRL1 using anti-ALK-1/ACVRL1 antibody (AAA19242). ALK-1/ACVRL1 was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-ALK-1/ACVRL1 Antibody (AAA19242) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 3. IHC analysis of ALK-1/ACVRL1 using anti-ALK-1/ACVRL1 antibody (AAA19242). ALK-1/ACVRL1 was detected in paraffin-embedded section of human gallbladder adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-ALK-1/ACVRL1 Antibody (AAA19242) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



WB (Western Blot)

Figure 1. Western blot analysis of ALK-1/ACVRL1 using anti-ALK-1/ACVRL1 antibody (AAA19242). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30µg of sample under reducing conditions. Lane 1: human HL-60 whole cell lysates Lane 2: human THP-1 whole cell lysates Lane 3: rat brain tissue lysates Lane 4: rat heart tissue lysates Lane 5: mouse brain tissue lysates Lane 6: mouse kidney tissue lysates Lane 7: mouse heart tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ALK-1/ACVRL1 antigen affinity purified polyclonal antibody (Catalog # AAA19242) at 0.5 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system). A specific band was detected for ALK-1/ACVRL1 at approximately 55KD. The expected band size for ALK-1/ACVRL1 is at 55KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ACVRL1 antibody	Serine/threonine-protein kinase receptor R3 is an enzyme that in humans is encoded by the ACVRL1 gene. This gene encodes a type I cell-surface receptor for the TGF-beta superfamily of ligands. It shares with other type I receptors a high degree of similarity in serine-threonine kinase subdomains, a glycine- and serine-rich region (called the GS domain) preceding the kinase domain, and a short C-terminal tail. The encoded protein, sometimes termed ALK1, shares similar domain structures with other closely related ALK or activin receptor-like kinase proteins that form a subfamily of receptor serine/threonine kinases. Mutations in this gene are associated with hemorrhagic telangiectasia type 2, also known as Rendu-Osler-Weber syndrome 2.
References	- Abdalla, S. A., Cymerman, U., Johnson, R. M., Deber, C. M., Letarte, M. Disease-associated mutations in conserved residues of ALK-1 kinase domain. <i>Europ. J. Hum. Genet.</i> 11: 279-287, 2003. - Abdalla, S. A., Letarte, M. Hereditary haemorrhagic telangiectasia: current views on genetics and mechanisms of disease. <i>J. Med. Genet.</i> 43: 97-110, 2006. - Abdalla, S. A., Pece-Barbara, N., Vera, S., Tapia, E., Paez, E., Bernabeu, C., Letarte, M. Analysis of ALK-1 and endoglin in newborns from families with hereditary hemorrhagic telangiectasia type 2. <i>Hum. Molec. Genet.</i> 9: 1227-1237, 2000.

NCBI AND UNIPROT INFORMATION

NCBI GI #	116734712
NCBI GeneID	94
NCBI Accession #	NP_000011.2
NCBI GenBank Nucleotide #	NM_000020.2
UniProt Accession #	P37023 ; A6NGA8
Molecular Weight	56,124 Da

NCBI Official Full Name	serine/threonine-protein kinase receptor R3
NCBI Official Synonym Full Names	activin A receptor type II-like 1
NCBI Official Symbol	ACVRL1
NCBI Official Synonym Symbols	HHT; ALK1; HHT2; ORW2; SKR3; ALK-1; TSR-I; ACVRLK1
NCBI Protein Information	serine/threonine-protein kinase receptor R3; TGF-B superfamily receptor type I; activin A receptor, type II-like kinase 1
UniProt Protein Name	Serine/threonine-protein kinase receptor R3
UniProt Gene Name	ACVRL1
UniProt Synonym Gene Names	ACVRLK1; ALK1; SKR3; ALK-1; TSR-I
UniProt Entry Name	ACVL1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/alk-1-acvr1-antibody-western-blot-immunohistochemistry-flow-cytometry-direct-elisa-elisa/19242>