

ACVR2B cell lysate

Human ACVR2B HEK293 Overexpression Lysate

CATALOG # AAA257374	HOST HEK293 Cells	APPLICATIONS Western Blot
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PRODUCT SYNONYMS

ACVR2B; Human ACVR2B HEK293 Overexpression Lysate; Human ACVR2B/ActivinR-IIB HEK293 Cell Lysate (WB positive control); activin A receptor; type IIB; Human Activin RIIB Overexpression Lysate; Human ActR-IIB Overexpression Lysate; Human ACTRIIB Overexpression Lysate; Human HTX4 Overexpression Lysate; ACVR2B cell lysate

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Form/Format	1x Sample Buffer (1x modified RIPA buffer+1x SDS loading buffer). Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF.
Sequence Positions	127aa
Sequence	Met1-Thr13 4
Applicable Applications for ACVR2B cell lysate	WB (Western Blot)
Species	Human
Recommend Usage	1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube. 2. Re-dissolve the pellet using 200uL pure water and boil for 2-5 min.
Sequence Construction	A DNA sequence encoding the extracellular domain of human ACVR2B (NP_001097.2) (Met 1-Thr 134) was fused with a polyhistidine tag at the C-terminus.
Preparation Method	Cell lysate was prepared by homogenization of the over-expressed cells in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors. Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x SDS loading buffer (50mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Preparation and Storage	Store at 4 degree C for up to twelve months from date of receipt. After re-dissolution, aliquot and store at -80 degree C for up to twelve months. Avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt.

ADDITIONAL INFORMATION

Related Product Information for ACVR2B cell lysate	ACVR2A and ACVR2B are two activin type II receptors. ACVR2B is integral to the activin and myostatin signaling pathway. Ligands such as activin and myostatin bind to ACVR2A and ACVR2B. Myostatin, a negative regulator of skeletal muscle growth, is regarded as a potential therapeutic target and binds to ACVR2B effectively, and to a lesser extent, to ACVR2A. The structure of human ACVR2B kinase domain in complex with adenine establishes the conserved bilobal architecture consistent with all other catalytic kinase domains. Haplotype structure at the ACVR2B and follistatin loci may contribute to interindividual variation in skeletal muscle mass and strength. Defects in ACVR2B are a cause of left-right axis malformations. This Human ACVR2B overexpression lysate was created in HEK293 Cells and intended for use as a Western blot (WB) positive control. Purification of ACVR2B protein from the overexpression lysate was verified.
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References	Kosaki R, et al. (1999) Left-right axis malformations associated with mutations in ACVR2B, the gene for human activin receptor type IIB. Am J Med Genet. 82(1):70-6. Dupont S, et al. (2001) No evidence for linkage or for diabetes-associated mutations in the activin type 2B receptor gene (ACVR2B) in French patients with mature-onset diabetes of the young or type 2 diabetes. Diabetes 50(5):1219-21. Albertson RC, et al. (2005) Zebrafish acvr2a and acvr2b exhibit distinct roles in craniofacial development. Developmental dynamics 233(4): 1405-18. Walsh S, et al. (2007) Activin-type II receptor B (ACVR2B) and follistatin haplotype associations with muscle mass and strength in humans. J Appl Physiol. 102(6):2142-8.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	116734708
NCBI GeneID	93
NCBI Accession #	NP_001097.2
NCBI GenBank Nucleotide #	NM_001106.3
UniProt Accession #	Q13705; Q4VAV0
Molecular Weight	– Da
NCBI Official Full Name	activin receptor type-2B
NCBI Official Synonym Full Names	activin A receptor type 2B
NCBI Official Symbol	ACVR2B
NCBI Official Synonym Symbols	HTX4; ACTRIIB; ActR-IIB
NCBI Protein Information	activin receptor type-2B
UniProt Protein Name	Activin receptor type-2B
UniProt Gene Name	ACVR2B
UniProt Synonym Gene Names	ACTR-IIB
UniProt Entry Name	AVR2B_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.