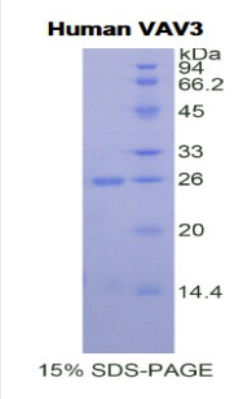
Vav 3 Oncogene (VAV3) Recombinant Protein

PRODUCT OVERVIEW

Product Name	Vav 3 Oncogene (VAV3), Recombinant Protein
Full Product Name	Recombinant Vav 3 Oncogene (VAV3)
Product Gene Name	VAV3 recombinant protein
Sequence	The target protein is fused with N-terminal His-Tag, its sequence is listed below. MGHHHHHHSG SEF- FGR PQGDGEIRIT TLDKHTKQER HIFLFDLAVI VCKRKGDNYE MKEIIDLQQY KIANNPTTDK ENKKWSYGFY LIHTQGQNGL EFYCKTKDLK KKWLEQFEMA LSNIRPDYAD SNFHDFKMHT FTRVTSCKVC QMLLRGTFYQ GYLCFKCGAR AHKECLGRVD NCGRVNSGEQ GTLKLPEKRT NGL
Host	E Coli
Form/Format	Supplied as lyophilized form in PBS,pH7.4, containing 5% sucrose, 0.01% sarcosyl.
Purity/Purification	> 95%
Preparation and Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate of the targetprotein. The loss rate was determined by accelerated thermal degradation test,that is, incubate the protein at 37 degree C for 48h, and no obvious degradation andprecipitation were observed. (Referring from China Biological Products Standard,which was calculated by the Arrhenius equation.) The loss of this protein is lessthan 5% within the expiration date under appropriate storage condition.
Matching Pairs	Unconjugated Antibody: VAV3 (MBS2007002) Immunogen: VAV3 (MBS2012235)
Matching Pairs	APC-CY7 Conjugated Antibody: VAV3 (MBS2075867) Immunogen: VAV3 (MBS2012235)
Matching Pairs	PE Conjugated Antibody: VAV3 (MBS2075869) Immunogen: VAV3 (MBS2012235)
Matching Pairs	APC Conjugated Antibody: VAV3 (MBS2075871) Immunogen: VAV3 (MBS2012235)
Matching Pairs	Cy3 Conjugated Antibody: VAV3 (MBS2075873) Immunogen: VAV3 (MBS2012235)
Matching Pairs	FITC Conjugated Antibody: VAV3 (MBS2075875) Immunogen: VAV3 (MBS2012235)
Matching Pairs	HRP Conjugated Antibody: VAV3 (MBS2075877) Immunogen: VAV3 (MBS2012235)
Matching Pairs	Biotin Conjugated Antibody: VAV3 (MBS2095886) Immunogen: VAV3 (MBS2012235)
Molecular Weight	23.2kDa
Chromosome Location	Chromosome: 1; NC_000001.10 (108113782..108507545, complement). Location: 1p13.3
OMIM	605541
3D Structure	ModBase 3D Structure for Q9UKW4
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.

Organism	Homo sapiens (Human)
Expression System	Prokaryotic expression
Residues	Phe398~Leu583 (Accession # Q9UKW4) with N-terminal His-Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Reconstitution	Reconstitute in sterile PBS, pH7.2-pH7.4.
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for VAV3 recombinant protein	SDS-PAGE, Western Blot (WB), ELISA (EIA), Immunoprecipitation (IP)
Related Product Information for VAV3 recombinant protein	MBS2012235 is a recombinant protein targeting VAV3. Also known as Recombinant Vav 3 Oncogene (VAV3). Host: E Coli.
Other Notes	Small volumes of VAV3 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-Page of VAV3 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for VAV3. It may not necessarily be applicable to this product.

NCBI GI #	120432042
NCBI GeneID	10451
NCBI Accession #	NP_001073343.1
UniProt Primary Accession #	Q9UKW4
UniProt Secondary Accession #	O60498; O95230; Q9Y5X8; B1AMM0; B1APV5; B4E232; B7ZLR1; E9PQ97
UniProt Related Accession #	Q9UKW4
GenBank Nucleotide #	NM_001079874.1
NCBI Official Full Name	guanine nucleotide exchange factor VAV3 isoform 2
NCBI Official Synonym Full Names	vav 3 guanine nucleotide exchange factor
NCBI Official Symbol	VAV3
UniProt Protein Name	Guanine nucleotide exchange factor VAV3
Protein Family	Guanine nucleotide exchange factor
UniProt Gene Name	VAV3

UniProt Synonym Gene Names	VAV-3
UniProt Entry Name	VAV3_HUMAN
NCBI Protein Information	guanine nucleotide exchange factor VAV3; VAV-3; vav 3 oncogene
NCBI Summary for VAV3	This gene is a member of the VAV gene family. The VAV proteins are guanine nucleotide exchange factors (GEFs) for Rho family GTPases that activate pathways leading to actin cytoskeletal rearrangements and transcriptional alterations. This gene product acts as a GEF preferentially for RhoG, RhoA, and to a lesser extent, RAC1, and it associates maximally with the nucleotide-free states of these GTPases. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]
UniProt Comments for VAV3	VAV3: a guanine nucleotide exchange factor (GEF) that activates RhoA, RhoG and, to a lesser extent, Rac1. Binds physically to the nucleotide-free states of those GTPases. Plays an important role in angiogenesis. Its recruitment by activated EPHA2 is critical for EFNA1-induced RAC1 GTPase activation and vascular endothelial cell migration and assembly. May be important for integrin-mediated signaling, at least in some cell types. In osteoclasts, along with SYK tyrosine kinase, required for signaling through integrin alpha-v/beta-1 (ITAGV-ITGB1), a crucial event for osteoclast proper cytoskeleton organization and function. This signaling pathway involves RAC1, but not RHO, activation. Necessary for proper wound healing. In the course of wound healing, required for the phagocytotic cup formation preceding macrophage phagocytosis of apoptotic neutrophils. Responsible for integrin beta-2 (ITGB2)-mediated macrophage adhesion and, to a lesser extent, contributes to beta-3 (ITGB3)-mediated adhesion. Does not affect integrin beta-1 (ITGB1)-mediated adhesion. Interacts with the PH domain of APS. Interacts (via SH2 domains) with the phosphorylated form of EPHA2. Interacts with ROS1; constitutive interaction that mediates VAV3 phosphorylation. Down-regulated by EGF and TGF-beta. Four isoforms of the human protein are produced by alternative promoter. Isoform 1 and isoform 3 are widely expressed; both are expressed at very low levels in skeletal muscle. In keratinocytes, isoform 1 is less abundant than isoform 3. Isoform 3 is detected at very low levels, if any, in adrenal gland, bone marrow, spleen, fetal brain and spinal chord; in these tissues, isoform 1 is readily detectable. Protein type: GEFs, Rac/Rho; GEFs; Nuclear receptor co-regulator; Motility/polarity/chemotaxis; Adaptor/scaffold; Actin-binding Chromosomal Location of Human Ortholog: 1p13.3 Cellular Component: plasma membrane; cytosol Molecular Function: protein binding; SH3/SH2 adaptor activity; metal ion binding; guanyl-nucleotide exchange factor activity; Rac guanyl-nucleotide exchange factor activity; GTPase activator activity; epidermal growth factor receptor binding Biological Process: response to drug; integrin-mediated signaling pathway; lamellipodium biogenesis; neutrophil chemotaxis; axon guidance; platelet activation; positive regulation of cell adhesion; nerve growth factor receptor signaling pathway; positive regulation of signal transduction; positive regulation of apoptosis; positive regulation of phosphoinositide 3-kinase activity; vesicle fusion; regulation of small GTPase mediated signal transduction; B cell receptor signaling pathway; small GTPase mediated signal transduction; ephrin receptor signaling pathway; positive regulation of B cell proliferation; innate immune response; angiogenesis; vascular endothelial growth factor receptor signaling pathway; blood coagulation; response to DNA damage stimulus
Research Articles on VAV3	**1.** Interrupting Vav3 signaling enhances docetaxel-induced apoptosis in LNCaP cells under chronic hypoxia by inhibiting the PI3K/Akt, ERK, and AR signaling pathways.
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