Vacuolar Protein Sorting-Associated Protein 4a (VPS4A) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Vacuolar protein sorting-associated protein 4A (Vps4a), Recombinant Protein
Full Product Name	Recombinant Rat Vacuolar protein sorting-associated protein 4A (Vps4a)
Product Gene Name	Vps4a recombinant protein
Product Synonym Gene Name	Vps4a
Sequence	TTSTLQKAID LVTKATEEDK AKNYEEALRL YQHAVEYFLH AIKYEAHSDK AKESIRAKCM QYLDRAEKLK DYLRNKEKHG KKPVKENQSE GKGSDSDSEG DNPEKKKLQE QLMGAVVMEK PNIRWNDVAG LEGAKEALKE AVILPIKFPH LFTGKRTPWR GILLFGPPGT GKSYLAKAVA TEANNSTFFS VSSSDLMSKW LGESEKLVKN LFELARQHKP SIIFIDEVDS LCGSRNENES EAARRIKTEF LVQMQGVGNN NDGTLVLGAT NIPWVLDSAI RRRFEKRIYI PLPEEAARAQ MFRLHLGSTP HNLTDANIHE LARKTEGYSG ADISIIVRDS LMQPVRKVQS ATHFKKVCGP SRTNPSVMID DLLTPCSPGD PGAIEMTWMD VPGDKLLEPV VCMSDMLRSL ATTRPTVNAD DLLKVKKFSE DFGQES
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	48,907 Da
Sequence Positions	2-437, full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q793F9
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Vps4a recombinant protein	This protein is a member of the AAA protein family (ATPases associated with diverse cellular activities), and is the homolog of the yeast Vps4 protein. In humans, two paralogs of the yeast protein have been identified. The former share a high degree of aa sequence similarity with each other, and also with yeast Vps4 and mouse Skd1 proteins. The mouse Skd1 (suppressor of K+ transport defect 1) has been shown to be really an yeast Vps4 ortholog. Functional studies indicate that both human paralogs associate with the endosomal compartments, and are involved in intracellular protein trafficking, similar to Vps4 protein in yeast. The gene encoding this paralog has been mapped to chromosome 16; the gene for the other resides on chromosome 18.
Other Notes	Small volumes of Vps4a 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.
Searchable Terms for Vps4a purchase	MBS1425111 is a recombinant protein targeting Vps4a. Also known as Recombinant Rat Vacuolar protein sorting-associated protein 4A (Vps4a). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Vps4a. It may not necessarily be applicable to this product.

NCBI GI #	21728408
NCBI GeneID	246772
NCBI Accession #	NP_663711.1
UniProt Primary Accession #	Q793F9
UniProt Related Accession #	Q793F9
GenBank Nucleotide #	NM_145678.1
NCBI Official Full Name	vacuolar protein sorting-associated protein 4A
NCBI Official Synonym Full Names	vacuolar protein sorting 4 homolog A
NCBI Official Symbol	Vps4a
UniProt Protein Name	Vacuolar protein sorting-associated protein 4A
Protein Family	Vacuolar protein sorting-associated protein
UniProt Gene Name	Vps4a
UniProt Synonym Gene Names	vps4-A
NCBI Protein Information	vacuolar protein sorting-associated protein 4A
NCBI Summary for Vps4a	binds Rho family GTPase Rnd2; may play a role in endosomal trafficking [RGD, Feb 2006]
UniProt Comments for Vps4a	Involved in late steps of the endosomal multivesicular bodies (MVB) pathway. Recognizes membrane-associated ESCRT-III assemblies and catalyzes their disassembly, possibly in combination with membrane fission. Redistributes the ESCRT-III components to the cytoplasm for further rounds of MVB sorting. MVBs contain intraluminal vesicles (ILVs) that are generated by invagination and scission from the limiting membrane of the endosome and mostly are delivered to lysosomes enabling degradation of membrane proteins, such as stimulated growth factor receptors, lysosomal enzymes and lipids. In conjunction with the ESCRT machinery also appears to function in topologically equivalent membrane fission events, such as the terminal stages of cytokinesis. Involved in cytokinesis: retained at the midbody by ZFYVE19/ANCHR and CHMP4C until abscission checkpoint signaling is terminated at late cytokinesis. It is then released following dephosphorylation of CHMP4C, leading to abscission. VPS4A/B are required for the exosomal release of SDCBP, CD63 and syndecan ().
Research Articles on Vps4a	**1.** Vps4A was involved in promoting neuronal apoptosis via inhibiting Akt phosphorylation after intracerebral hemorrhage
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