

CHMP3 Blocking Peptide (N-term)

Synthetic peptide Catalog # BP21033a

Specification

CHMP3 Blocking Peptide (N-term) - Product Information

Primary Accession <u>Q9Y3E7</u>

Other Accession <u>Q8CGS4</u>, <u>Q9CQ10</u>, <u>Q4R574</u>, <u>Q58CS7</u>

CHMP3 Blocking Peptide (N-term) - Additional Information

Gene ID 100526767;51652

Other Names

Charged multivesicular body protein 3, Chromatin-modifying protein 3, Neuroendocrine differentiation factor, Vacuolar protein sorting-associated protein 24, hVps24, CHMP3, CGI149, NEDF, VPS24

Target/Specificity

The synthetic peptide sequence is selected from aa 28-41 of HUMAN CHMP3

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CHMP3 Blocking Peptide (N-term) - Protein Information

Name CHMP3

Synonyms CGI149, NEDF, VPS24

Function

Probable core component of the endosomal sorting required for transport complex III (ESCRT-III) which is involved in multivesicular bodies (MVBs) formation and sorting of endosomal cargo proteins into MVBs. 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. The MVB pathway appears to require the sequential function of ESCRT-O, -I,-II and -III complexes. ESCRT-III proteins mostly dissociate from the invaginating membrane before the ILV is released. The ESCRT machinery also functions in topologically equivalent membrane fission events, such as the terminal stages of cytokinesis and the budding of enveloped viruses (HIV-1 and other lentiviruses). ESCRT-III proteins are believed to mediate the



necessary vesicle extrusion and/or membrane fission activities, possibly in conjunction with the AAA ATPase VPS4. Selectively binds to phosphatidylinositol 3,5-bisphosphate PtdIns(3,5)P2 and PtdIns(3,4)P2 in preference to other phosphoinositides tested. Involved in late stages of cytokinesis. Plays a role in endosomal sorting/trafficking of EGF receptor. Isoform 2 prevents stress-mediated cell death and accumulation of reactive oxygen species when expressed in yeast cells.

Cellular Location

Cytoplasm, cytosol. Membrane; Lipid-anchor. Endosome. Late endosome membrane. Note=Localizes to the midbody of dividing cells

Tissue Location

Widely expressed. Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas

CHMP3 Blocking Peptide (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

Blocking Peptides

CHMP3 Blocking Peptide (N-term) - Images

CHMP3 Blocking Peptide (N-term) - Background

Probable core component of the endosomal sorting required for transport complex III (ESCRT-III) which is involved in multivesicular bodies (MVBs) formation and sorting of endosomal cargo proteins into MVBs. 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. The MVB pathway appears to require the sequential function of ESCRT-O, -I,-II and -III complexes. ESCRT-III proteins mostly dissociate from the invaginating membrane before the ILV is released. The ESCRT machinery also functions in topologically equivalent membrane fission events, such as the terminal stages of cytokinesis and the budding of enveloped viruses (HIV-1 and other lentiviruses). ESCRT-III proteins are believed to mediate the necessary vesicle extrusion and/or membrane fission activities, possibly in conjunction with the AAA ATPase VPS4. Selectively binds to phosphatidylinositol 3,5-bisphosphate PtdIns(3,5)P2 and PtdIns(3,4)P2 in preference to other phosphoinositides tested. Involved in late stages of cytokinesis. Plays a role in endosomal sorting/trafficking of EGF receptor. Isoform 2 prevents stress- mediated cell death and accumulation of reactive oxygen species when expressed in yeast cells.

CHMP3 Blocking Peptide (N-term) - References

Wilson E.M., et al.J. Clin. Endocrinol. Metab. 86:4504-4511(2001). Yan Q., et al.Exp. Cell Res. 304:265-273(2005). Kemmer D., et al.BMC Genomics 7:48-48(2006). Khoury C.M., et al.Gene 391:233-241(2007). Lai C.-H., et al.Genome Res. 10:703-713(2000).