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CHMP3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21033a

Product Information

Application	WB, E
Primary Accession	Q9Y3E7
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB51722
Calculated MW	25073

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	This CHMP3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 28-61 amino acids from the N-terminal region of human CHMP3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CHMP3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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

Background

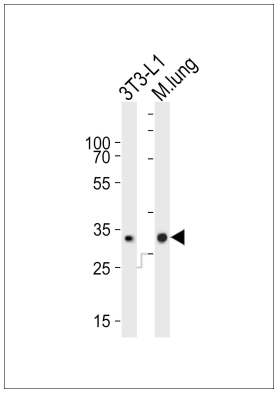
Probable core component of the endosomal sorting required for transport complex III (ESCRT-III) which is involved in multivesicular bodies (MVBs) formation and sorting of endosomal cargo proteins into MVBs. MVBs contain intraluminal vesicles (ILVs) that are generated by invagination and scission from 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.

References

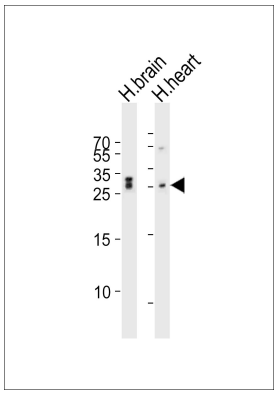
Wilson E.M.,et al.J. Clin. Endocrinol. Metab. 86:4504-4511(2001).
Yan Q.,et al.Exp. Cell Res. 304:265-273(2005).
Kemmer D.,et al.BMC Genomics 7:48-48(2006).
Khoury C.M.,et al.Gene 391:233-241(2007).
Lai C.-H.,et al.Genome Res. 10:703-713(2000).

Images

Western blot analysis of lysates from mouse 3T3-L1 cell line and mouse lung tissue (from left to right), using CHMP3 Antibody (N-term)(Cat. #AP21033a). AP21033a



was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



Western blot analysis of lysates from human brain and human heart tissue lysate (from left to right), using CHMP3 Antibody (N-term)(Cat. #AP21033a). AP21033a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.