10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CHMP4A Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21067a

Product Information

Application	WB, E
Primary Accession	Q9BY43
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB51700
Calculated MW	25098

Additional Information

Gene ID	29082
Other Names	Charged multivesicular body protein 4a, Chromatin-modifying protein 4a, CHMP4a, SNF7 homolog associated with Alix-2, SNF7-1, hSnf-1, Vacuolar protein sorting-associated protein 32-1, Vps32-1, hVps32-1, CHMP4A, C14orf123, SHAX2
Target/Specificity	This CHMP4A antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 205-239 amino acids from the C-terminal region of human CHMP4A.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	CHMP4A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CHMP4A
Synonyms	C14orf123, SHAX2
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. When overexpressed, membrane-assembled circular arrays of CHMP4A filaments can promote or stabilize negative curvature and outward budding. Via its interaction with PDCD6IP involved in HIV-1 p6- and p9-dependent virus release. CHMP4A/B/C are required for the exosomal release of SDCBP, CD63 and syndecan (PubMed:22660413).
Cellular Location	Cytoplasmic vesicle membrane. Late endosome membrane; Peripheral membrane protein Note=Membrane-associated. Localizes to large vesicle-like structures Localizes to the midbody of dividing cells. Localized in two distinct rings on either side of the Fleming body
Tissue Location	Widely expressed. Expressed at higher level in heart, kidney, liver and skeletal muscle. Also expressed in brain, placenta, lung and pancreas.

Background

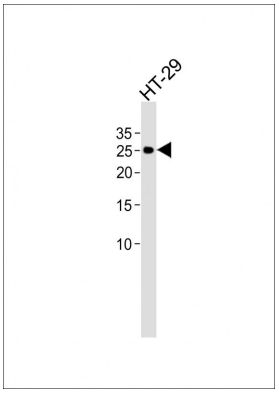
Probable core component of the endosomal sorting required for transport complex III (ESCRT-III) which is involved in multivesicular bodies (MVBs) formation and sorting of endosomal cargo proteins into MVBs. MVBs contain intraluminal vesicles (ILVs) that are generated by invagination and scission from 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. When overexpressed, membrane-assembled circular arrays of CHMP4A filaments can promote or stabilize negative curvature and outward budding. Via its interaction with PDCD6IP involved in HIV-1 p6- and p9-dependent virus release.

References

Katoh K.,et al.J. Biol. Chem. 278:39104-39113(2003).
Peck J.W.,et al.Biochem. J. 377:693-700(2004).
Li Y.,et al.Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
Zhang Q.-H.,et al.Genome Res. 10:1546-1560(2000).
Li W.B.,et al.Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.

Images

All lanes: Anti-CHMP4A Antibody (C-term) at 1:1000 dilution + HT-29 whole cell lysate Lysates/proteins at 20



µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 25. 1 KDa Blocking/Dilution buffer: 5% NFDM/TBST.