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CHMP5 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18536b

Product Information

Application	WB, E
Primary Accession	Q9NZZ3
Other Accession	Q4QQV8, Q9D7S9, NP_057494.3
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB38584
Calculated MW	24571
Antigen Region	178-204

Additional Information

Gene ID	51510
Other Names	Charged multivesicular body protein 5, Chromatin-modifying protein 5, SNF7 domain-containing protein 2, Vacuolar protein sorting-associated protein 60, Vps60, hVps60, CHMP5, C9orf83, SNF7DC2
Target/Specificity	This CHMP5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 178-204 amino acids from the C-terminal region of human CHMP5.
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	CHMP5 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CHMP5
Synonyms	C9orf83, SNF7DC2

Function	Probable peripherally associated 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) (PubMed:14519844). ESCRT-III proteins are believed to mediate the necessary vesicle extrusion and/or membrane fission activities, possibly in conjunction with the AAA ATPase VPS4. Involved in HIV-1 p6- and p9-dependent virus release (PubMed:14519844).
Cellular Location	Cytoplasm, cytosol. Endosome membrane; Peripheral membrane protein. Midbody. Note=Localizes to the midbody of dividing cells (PubMed:17853893). Localized in two distinct rings on either side of the Flemming body (PubMed:17853893)

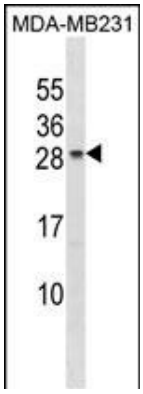
Background

CHMP5 belongs to the chromatin-modifying protein/charged multivesicular body protein (CHMP) family. These proteins are components of ESCRT-III (endosomal sorting complex required for transport III), a complex involved in degradation of surface receptor proteins and formation of endocytic multivesicular bodies (MVBs). Some CHMPs have both nuclear and cytoplasmic/vesicular distributions, and one such CHMP, CHMP1A (MIM 164010), is required for both MVB formation and regulation of cell cycle progression (Tsang et al., 2006 [PubMed 16730941]).

References

Wang, H.R., et al. Zhongguo Shi Yan Xue Ye Xue Za Zhi 16(2):282-285(2008)
Row, P.E., et al. J. Biol. Chem. 282(42):30929-30937(2007)
Huang, H.H., et al. Zhongguo Shi Yan Xue Ye Xue Za Zhi 15(4):738-742(2007)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Wang, H.R., et al. Oncology 71 (5-6), 423-429 (2006) :

Images



CHMP5 Antibody (C-term) (Cat. #AP18536b) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the CHMP5 antibody detected the CHMP5 protein (arrow).