



## **CHMP2A Polyclonal Antibody**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP55340

### **Specification**

## **CHMP2A Polyclonal Antibody - Product Information**

Application
Primary Accession
Reactivity
Host
Clonality
Calculated MW
Physical State
Immunogen

Epitope Specificity Isotype **Purity** affinity purified by Protein A

Buffer

SUBCELLULAR LOCATION

SIMILARITY SUBUNIT

Post-translational modifications

WB, IHC-P, IHC-F, IF, ICC, E

O43633 Rat, Dog Rabbit Polyclonal 25 KDa Liquid

KLH conjugated synthetic peptide derived

from human CHMP2A

1-100/222

laG

0.01M TBS (pH7.4) with 1% BSA, 0.02%

Proclin300 and 50% Glycerol.

Late endosome membrane. Localizes to the midbody of dividing cells. Localized in two distinct rings on either side of the Fleming

bodv.

Belongs to the SNF7 family. Probable core component of the endosomal sorting required for transport complex III (ESCRT-III). ESCRT-III components are thought to multimerize to form a flat lattice on the perimeter membrane of the endosome. Several assembly forms of ESCRT-III may exist that interact and act sequentally. In vitro, heteromerizes with CHMP3 (but not CHMP4) to form helical tubular structures that expose membrane-interacting sites on the outside whereas VPS4B can associate on the inside of the tubule. Interacts with CHMP1B, CHMP2B, CHMP3, CHMP4A, CHMP4B, CHMP4C and CHMP5. Interacts with VPS4A; the interaction is direct. Interacts with VPS4B: the interaction is direct. Interacts with MITD1. Interacts with VTA1; the interaction probably involves the

ISGylated in a CHMP5-dependent manner. Isgylation weakens and inhibits its interactions with VPS4A and VTA1

open conformation of CHMP2A.

respectively.



Important Note

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

## **Background Descriptions**

CHMP2A 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]).[supplied by OMIM, Mar 2008]

# **CHMP2A Polyclonal Antibody - Additional Information**

**Gene ID 27243** 

#### **Other Names**

Charged multivesicular body protein 2a, Chromatin-modifying protein 2a, CHMP2a, Putative breast adenocarcinoma marker BC-2, Vacuolar protein sorting-associated protein 2-1, Vps2-1, hVps2-1, CHMP2A, BC2, CHMP2

#### **Dilution**

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<span class ="dilution_WB">WB~~1:1000</span><br \><span class
="dilution_IHC-P">IHC-P~~N/A</span><br \><span class
="dilution_IHC-F">IHC-F~~N/A</span><br \><span class
="dilution_IF">IF~~1:50~200</span><br \><span class ="dilution_ICC">ICC~~N/A</span><br \><span class ="dilution_ICC">ICC~~N/A</span><br \><span class ="dilution_ICC">ICC~~N/A</span><br \><span class ="dilution_ICC">ICC~~N/A</span>
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#### Storage

Store at -20  $^{\circ}$ C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4  $^{\circ}$ C.

## **CHMP2A Polyclonal Antibody - Protein Information**

Name CHMP2A

Synonyms BC2, CHMP2

#### **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 (PubMed:<a href="http://www.uniprot.org/citations/21310966" target="\_blank">21310966</a>/a>). Together with SPAST, the ESCRT-III complex promotes nuclear envelope sealing and mitotic spindle disassembly during late anaphase (PubMed:<a href="http://www.uniprot.org/citations/26040712" target="\_blank">26040712</a>). Recruited to the reforming nuclear envelope (NE) during anaphase by LEMD2 (PubMed:<a href="http://www.uniprot.org/citations/28242692"



target="\_blank">28242692</a>). ESCRT-III proteins are believed to mediate the necessary vesicle extrusion and/or membrane fission activities, possibly in conjunction with the AAA ATPase VPS4.

#### **Cellular Location**

Late endosome membrane; Peripheral membrane protein; Cytoplasmic side. Nucleus envelope. Note=Localizes to the midbody of dividing cells. Localized in two distinct rings on either side of the Fleming body. Localizes to the reforming nuclear envelope on chromatin disks during late anaphase (PubMed:28242692)

## **CHMP2A Polyclonal Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

**CHMP2A Polyclonal Antibody - Images**