

Product datasheet

Recombinant Human CHMP2B protein ab109959

1 Image

Description

Product name	Recombinant Human CHMP2B protein
Purity	> 90 % SDS-PAGE. ab109959 was purified using conventional chromatography techniques.
Expression system	Escherichia coli
Accession	<u><a href="#">Q9UQN3</a></u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	<b>MGSSHHHHHHSSGLVPRGSH</b> MASLFKKKTVDVIEQN RELRGTRQRAIR DRAALEKQEKQLELEIKKMAKIGNKEACKVLAKQLVHLRK QKTRTFVSS KVTSMSSTQTKVMNSQMKMAGAMSTTAKTMQAVNKKMDP QKTLQTMQNFQK ENMKMEMTEEMINDTLDDIFDGSDDEEESQDIVNQVLDEI GIEISGKMAK APSAARSLPSASTSKATISDEEIERQLKALGVD
Predicted molecular weight	26 kDa including tags
Amino acids	1 to 213
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab109959** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Mass Spectrometry
Mass spectrometry	MALDI-TOF
Form	Liquid

## Preparation and Storage

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### Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.02% DTT, 0.32% Tris HCl, 10% Glycerol (glycerin, glycerine), 0.58% Sodium chloride

## General Info

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### 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.

### Tissue specificity

Widely expressed. Expressed in brain, heart, skeletal muscle, spleen, kidney, liver, small intestine, pancreas, lung, placenta and leukocytes. In brain, it is expressed in cerebellum, cerebral cortex, medulla, spinal chord, occipital lobe, frontal lobe, temporal lobe and putamen.

### Involvement in disease

Defects in CHMP2B are the cause of frontotemporal dementia, chromosome 3-linked (FTD3) [MIM:600795]. FTD3 is characterized by an onset of dementia in the late 50's initially characterized by behavioral and personality changes including apathy, restlessness, disinhibition and hyperorality, progressing to stereotyped behaviors, non-fluent aphasia, mutism and dystonia, with a marked lack of insight. The brains of individuals with FTD3 have no distinctive neuropathological features. They show global cortical and central atrophy, but no beta-amyloid deposits.

### Sequence similarities

Belongs to the SNF7 family.

### Domain

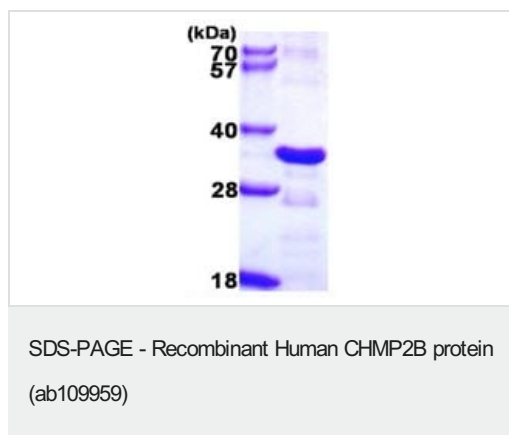
The acidic C-terminus and the basic N-terminus are thought to render the protein in a closed, soluble and inactive conformation through an autoinhibitory intramolecular interaction. The open and active conformation, which enables membrane binding and oligomerization, is achieved by interaction with other cellular binding partners, probably including other ESCRT components.

### Cellular localization

Cytoplasm > cytosol. Late endosome membrane.

## Images

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15% SDS-PAGE analysis of 3 µg ab109959.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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