Product datasheet

Anti-alpha COP I/COPA antibody ab2913

1 References 1 Image

Overview

Product name Anti-alpha COP I/COPA antibody
Description Rabbit polyclonal to alpha COP I/COPA
Host species Rabbit
Specificity Detects coatomer-protein I alpha (COP I alpha).
Tested applications Suitable for: ICC/IF, IP, WB
Species reactivity Reacts with: Rat, Human, Non human primates
Predicted to work with: Mouse, Cow, Dog, Rice
Immunogen Synthetic peptide corresponding to Rat alpha COP I/COPA aa 1-19.
Sequence: MLTKFETKSARVKGLSFHP

(Peptide available as ab4931)

General notes This product was previously labelled as alpha COP I

Properties

Form Liquid
Storage instructions 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.
Storage buffer Preservative: 0.05% Sodium azide
Constituents: 0.1% BSA, 99% PBS
Purity Immunogen affinity purified
Primary antibody notes Coatomer proteins are involved in regulating transport between the endoplasmic reticulum (ER) and the Golgi complex and in intra-Golgi transport. There exist two coatomer-protein mechanisms (COP I and COP II) and although they have mechanistic parallels, they are molecularly distinct. The COP I coat is comprised of seven subunits (alpha-, beta-, beta’, gamma-, delta-, epsilon-, and zeta-COP) in a complex called coatomer. Assembly of the coatomer (COP I) onto non-clathrin coated vesicles is regulated by ADP-ribosylation factor (ARF). Vesicle formation, budding, fusion, and disassembly is dependent on GDP-GTP exchange, COP I, and ARF. COP I has been shown
to facilitate retrograde intracellular transport from the ER to the Golgi complex. By contrast, COP II facilitates anterograde transport between these subcellular organelles. COP II has been shown to be independently and selectively recruited to the ER relative to COP I subunits.

Clonality  
Polyclonal

Isotype  
IgG

Applications

Our Abpromise guarantee covers the use of ab2913 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 3 µg/ml.</td>
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<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 100, 140 kDa.</td>
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</tbody>
</table>

Target

Function  
The coatamer is a cytosolic protein complex that binds to dilysine motifs and reversibly associates with Golgi non-clathrin-coated vesicles, which further mediate biosynthetic protein transport from the ER, via the Golgi up to the trans Golgi network. Coatamer complex is required for budding from Golgi membranes, and is essential for the retrograde Golgi-to-ER transport of dilysine-tagged proteins. In mammals, the coatamer can only be recruited by membranes associated to ADP-ribosylation factors (ARFs), which are small GTP-binding proteins; the complex also influences the Golgi structural integrity, as well as the processing, activity, and endocytic recycling of LDL receptors.

Xenin stimulates exocrine pancreatic secretion. It inhibits pentagastrin-stimulated secretion of acid, to induce exocrine pancreatic secretion and to affect small and large intestinal motility. In the gut, xenin interacts with the neurotensin receptor.

Tissue specificity  
Uniformly expressed in a wide range of adult and fetal tissues. Xenin is found in gastric, duodenal and jejunal mucosa. Circulates in the blood. Seems to be confined to specific endocrine cells.

Sequence similarities  
Contains 6 WD repeats.

Developmental stage  
Xenin is released into the circulation after a meal.

Cellular localization  
Secreted and Cytoplasm. Golgi apparatus membrane. Cytoplasmic vesicle > COP I-coated vesicle membrane. The coatamer is cytoplasmic or polymerized on the cytoplasmic side of the Golgi, as well as on the vesicles/buds originating from it.
Immunocytochemistry/ Immunofluorescence - Anti-alpha COP I/COPA antibody (ab2913)

ICC/IF of COP1 in Hela Cells

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