

## Rabbit Polyclonal Anti-SEC24C antibody

Catalog Number: SEC24C-301AP

Lot Number:

### General Information

<b>Product</b>	SEC24C Antibody
<b>Description</b>	Protein transport protein Sec24C Antibody
<b>Accession #</b>	Uniprot: B5DEG8 NCBI: NP_001102926.1
<b>Verified Applications</b>	ELISA, IP, WB
<b>Species Cross Reactivity</b>	Mouse, Rat
<b>Host</b>	Rabbit
<b>Immunogen</b>	Synthetic peptide taken within amino acid region 950-1000 on rat SEC24C protein.
<b>Alternative Nomenclature</b>	Protein transport protein Sec24C antibody, SC24C antibody, SC24C_HUMAN antibody, Sec 24C antibody, SEC24 related gene family, member C ( <i>S. cerevisiae</i> ) antibody, SEC24 related protein C antibody

### Physical Properties

<b>Quantity</b>	100 µg
<b>Volume</b>	200 µl
<b>Form</b>	Affinity Purified Immunoglobulins
<b>Immunoglobulin &amp; Concentration</b>	0.55-0.59 mg/ml IgG in antibody stabilization buffer
<b>Storage</b>	Store at -20°C for long term storage.

### Recommended Dilutions

<b>DOT Blot</b>	1:10,000
<b>ELISA</b>	1:10,000
<b>Immunocytochemistry</b>	1:200
<b>Immunofluorescence</b>	1:200
<b>Immunohistochemistry</b>	1:200
<b>Immunoprecipitation</b>	1:200
<b>Western Blot</b>	1:500

## Related Products

## Catalog #

<b>FITC-Conjugated</b>	SEC24C-FITC
<b>BIOTIN-Conjugated</b>	SEC24C-BIOTIN
<b>Blocking Peptide</b>	P-SEC24C
<b>Positive Control</b>	PC-SEC24C
<b>SEC23</b>	SEC23-101AP
<b>SEC24A</b>	SEC24A-101AP
<b>SEC24B</b>	SEC24B-201AP
<b>SEC24D</b>	SEC24D-401AP

## Overview:

The regulation of intracellular vesicular trafficking is mediated by specific families of proteins that are involved in vesicular budding, translocation, and fusion of intracellular transport vesicles that selectively carry cargo proteins/lipids with target membranes. Two major classes of vesicular carriers within the endocytic and biosynthetic pathways are COPI/II and clathrin coated vesicles. Formation of coat protein complex II (COPII) vesicles requires the ordered assembly of the coat built from several cytosolic components GTPase Sar1, complexes of Sec23-Sec24 and Sec13-Sec31. The process is initiated by the conversion of GDP to GTP by the GTPase Sar1 which then recruits the heterodimeric complex of Sec23 and Sec24. This heterodimeric complex generates the pre-budding complex. The final step leading to membrane deformation and budding of COPII-coated vesicles is carried by the heterodimeric complex Sec13-Sec31. Sec23 and like proteins are very similar, both protein polypeptides fold in to 5 distinct domains: a beta-barrel a Zn finger, a vWA or trunk and all helical region and a C-terminal Gelsolin domain. All Sec family members exhibit a partial MIDAS motif and the overall Para-Rossmann type fold which is characteristic of this superfamily.

At least four different types of Sec24 proteins have been characterized: Sec24A, Aec24B, Sec24C and Sec24D. Sec24 of the COPII vesicle coat mediates the selective export of membrane proteins from the endoplasmic reticulum (ER) in yeast. Human cells express four Sec24 isoforms, but their role is unknown. Knockdown of single Sec24 isoforms showed dependence of di-leucine-mediated transport on Sec24A, but transport mediated by the other signals was not affected. By contrast, double knockdown of Sec24A with one of the other three Sec24 isoforms impaired all aromatic/hydrophobic signal-dependent transport (1). Double knockdown of Sec24B/C or Sec24B/D preferentially affected di-leucine-mediated transport, whereas knockdown of Sec24C/D affected di-isoleucine- and valine-mediated transport (1). Ebola virus envelop protein VP40 intracellular transport require Sec24C in ESCRT1 complex that interacts with Nedd4 (2). Mammalian Sec24 proteins exhibit close structural and functional homology to yeast Sec24 protein.

Sec24C is a 1089 amino acid protein located on chromosome 5q31.1. The Sec24C antibodies were generated using synthetic peptide corresponding to the C-terminus of rat Sec24C protein. The Sec24C antibodies were affinity purified over immobilized antigen based affinity chromatography. The purified immunoglobulins are stabilized in antibody stabilization buffer. Antigenic blocking peptide (P-SEC24C) and western blot positive controls (PC-SEC24C) are available. Antibodies can be conjugated to fluorophores or secondary enzymes upon request at nominal cost.

## References:

1. Wendeler M. W., Paccaud. JP, Hauri HP. Role of Sec24 isoforms in selective export of membrane proteins.
2. Seiya Yamayoshi,1,2 Takeshi Noda,2,3 Hideki Ebihara,2,3,4 Hideo Goto,1,2 Yuko Morikawa,5 Igor S. Lukashevich,6 Gabriele Neumann,7 Heinz Feldmann,4 and Yoshihiro. Ebola Virus Matrix VP40 Protein Uses the COPII Transport System for Its Intracellular Transport. Cell Host Microbe. 2008 March 13; 3(3): 168–177.

\* For users who may require large amounts of the products listed above, please inquire about bulk material discounts.  
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