Revision 1

#12042 Store at -20C

# Sec24B (D7D6S) Rabbit mAb

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| WB, IP, IF-IC | H Mk | Endogenous | 140 | Rabbit IgG | #O95487 | 10427 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 1:100 |
| Immunofluorescence (Immunocytochemistry) | 1:100 |

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

## Specificity / Sensitivity

Sec24B (D7D6S) Rabbit mAb recognizes endogenous levels of total Sec24B protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr270 of human Sec24B protein.

## Background

Coat Protein Complex II (COPII) is composed of five cytosolic proteins: Sec23/24 complex, Sec13/31 complex, and Sar1. COPII coat is located at the ER/Golgi interface and is involved in transport of newly synthesized proteins from the ER to the Golgi apparatus (1). COPII formation is initiated through the binding of the activated G protein, Sar1, to the Sec23/24 complex, thereby forming a prebudding complex that directly binds target molecules (1-3). The prebudding complex further recruits Sec13/31 to form mature COPII coat (4,5). The Sec24 subunit of COPII coat is thought to play a critical role in cargo selection (2,6). It binds directly to cargo proteins at the ER and brings them to COPII vesicles through interaction with Sec23. There are four Sec24 isoforms in human cells: Sec24A, Sec24B, Sec24C, and Sec24D (7). In mice, mutations in Sec24B have been linked to developmental defects (8,9).

## Background References

1. Aridor, M. et al. (1998) *J Cell Biol* 141, 61-70.
2. Miller, E.A. et al. (2003) *Cell* 114, 497-509.
3. Mossessova, E. et al. (2003) *Cell* 114, 483-95.
4. Barlowe, C. et al. (1994) *Cell* 77, 895-907.
5. Bi, X. et al. (2007) *Dev Cell* 13, 635-45.
6. Miller, E. et al. (2002) *EMBO J* 21, 6105-13.
7. Tang, B.L. et al. (1999) *Biochem Biophys Res Commun* 258, 679-84.
8. Merte, J. et al. (2010) *Nat Cell Biol* 12, 41-6; sup pp 1-8.
9. Wansleeben, C. et al. (2010) *Development* 137, 1067-73.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**WB:** Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

## Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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