

# Sec8 (14): sc-136234

## BACKGROUND

Exocytosis is crucial in membrane trafficking and it mediates hormone and neurotransmitter secretion out of the cell, as well as the incorporation of membrane proteins and lipids to the plasma membrane. It is crucial for cell-cell communication, cell growth and cell polarity. The exocyst complex is a multi-protein complex that consists of Sec3, Sec5, Sec6, Sec8, Sec10, Sec15, Exo70 and Exo84, and is essential for targeting exocytic vesicles to specific docking sites on the plasma membrane. The exocyst complex inhibits Tubulin polymerization *in vitro*, suggesting that the exocyst complex is important for modulating the microtubule dynamics that underlie exocytosis. Sec8, also known as EXOC4 (exocyst complex component 4), REC8 or SEC8L1, is one of eight protein subunits composing the mammalian exocyst complex. Human Sec8 maps to chromosome 7q33.

## REFERENCES

1. Potenza, M., et al. 1992. Sec6 encodes an 85 kDa soluble protein required for exocytosis in yeast. *Yeast* 8: 549-558.
2. TerBush, D.R., et al. 1995. Sec6, Sec8 and Sec15 are components of a multisubunit complex which localizes to small bud tips in *Saccharomyces cerevisiae*. *J. Cell Biol.* 130: 299-312.
3. Ting, A.E., et al. 1995. rSec6 and rSec8, mammalian homologs of yeast proteins essential for secretion. *Proc. Natl. Acad. Sci. USA* 92: 9613-9617.
4. Friedrich, G.A., et al. 1997. The secretory protein Sec8 is required for paraxial mesoderm formation in the mouse. *Dev. Biol.* 192: 364-374.
5. Grindstaff, K.K., et al. 1998. Sec6/8 complex is recruited to cell-cell contacts and specifies transport vesicle delivery to the basal-lateral membrane in epithelial cells. *Cell* 93: 731-740.
6. Hsu, S.C., et al. 1999. Targeting vesicles to specific sites on the plasma membrane: the role of the Sec6/8 complex. *Trends Cell Biol.* 9: 150-153.
7. Matern, H.T., et al. 2001. The Sec6/8 complex in mammalian cells: characterization of mammalian Sec3, subunit interactions, and expression of subunits in polarized cells. *Proc. Natl. Acad. Sci. USA* 98: 9648-9653.

## CHROMOSOMAL LOCATION

Genetic locus: EXOC4 (human) mapping to 7q33; Exoc4 (mouse) mapping to 6 A3.3.

## SOURCE

Sec8 (14) is a mouse monoclonal antibody raised against amino acids 31-201 of Sec8 of rat origin.

## PRODUCT

Each vial contains 50 µg IgG<sub>2b</sub> in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136234 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein ).

## APPLICATIONS

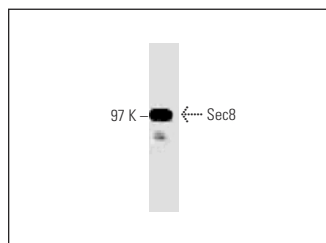
Sec8 (14) is recommended for detection of Sec8 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Sec8 siRNA (h): sc-60085, Sec8 siRNA (m): sc-60086, Sec8 shRNA Plasmid (h): sc-60085-SH, Sec8 shRNA Plasmid (m): sc-60086-SH, Sec8 shRNA (h) Lentiviral Particles: sc-60085-V and Sec8 shRNA (m) Lentiviral Particles: sc-60086-V.

Molecular Weight of Sec8: 110 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa nuclear extract: sc-2120 or MDCK cell lysate: sc-2252.

## DATA



Sec8 (14): sc-136234. Western blot analysis of Sec8 expression in HeLa whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Tanaka, T. and Iino, M. 2014. Knockdown of Sec8 promotes cell-cycle arrest at G<sub>1</sub>/S phase by inducing p21 via control of FOXO proteins. *FEBS J.* 281: 1068-1084.
2. Tanaka, T. and Iino, M. 2014. Sec6 regulated cytoplasmic translocation and degradation of p27 via interactions with Jab1 and Siah1. *Cell. Signal.* 26: 2071-2085.
3. Tanaka, T. and Iino, M. 2015. Sec8 regulates cyokeratin8 phosphorylation and cell migration by controlling the ERK and p38 MAPK signalling pathways. *Cell. Signal.* 27: 1110-1119.
4. Tanaka, T., et al. 2017. Sec8 modulates TGF-β induced EMT by controlling N-cadherin via regulation of Smad3/4. *Cell. Signal.* 29: 115-126.
5. Li, H., et al. 2022. EXOC4 promotes diffuse-type gastric cancer metastasis via activating FAK signal. *Mol. Cancer Res.* 20: 1021-1034.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.