

## Sec31A (32): sc-136233

### BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. Sec31A, also known as ABP125, ABP130 or SEC31L1, is a 1,220 amino acid protein that contains seven WD-repeats and localizes to the cytoplasm and to cytoplasmic vesicles, as well as to the membrane of the endoplasmic reticulum (ER). Expressed ubiquitously at high levels, Sec31A functions as a component of the COP II (coat protein II) complex and, working in tandem with other proteins, promotes the formation of ER transport vesicles and aids in the selection of cargo molecules. Chromosomal aberrations that involve the Sec31A gene are associated with inflammatory myofibroblastic tumors (IMTs), suggesting a role for Sec31A in carcinogenesis. Multiple isoforms of Sec31A exist due to alternative splicing events.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: SEC31A (human) mapping to 4q21.22.

### SOURCE

Sec31A (32) is a mouse monoclonal antibody raised against amino acids 522-719 of Sec31A of human origin.

### PRODUCT

Each vial contains 50 µg IgG<sub>1</sub> in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136233 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

### APPLICATIONS

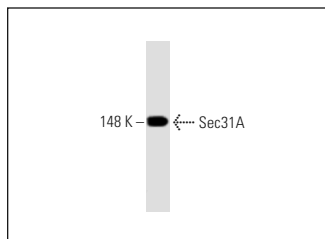
Sec31A (32) is recommended for detection of Sec31A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Sec31A siRNA (h): sc-89169, Sec31A shRNA Plasmid (h): sc-89169-SH and Sec31A shRNA (h) Lentiviral Particles: sc-89169-V.

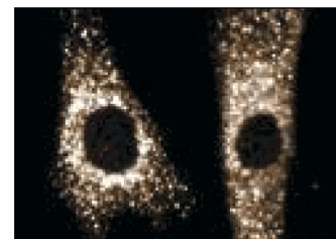
Molecular Weight of Sec31A: 150 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

### DATA



Sec31A (32): sc-136233. Western blot analysis of Sec31A expression in Jurkat whole cell lysate.



Sec31A (32): sc-136233. Immunofluorescence staining of Hs68 cells showing cytoplasmic localization.

### SELECT PRODUCT CITATIONS

- Wilhelmi, I., Kanski, R., Neumann, A., Herdt, O., Hoff, F., Jacob, R., Preubner, M. and Heyda, F. 2016. Sec16 alternative splicing dynamically controls COPII transport efficiency. *Nat. Commun.* 7: 12347.
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### 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.