

**Rab25 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1350a****Specification**

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**Rab25 Antibody - Product Information**

Application	WB, IHC, FC, ICC, E
Primary Accession	<a href="#">P57735</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	24kDa KDa

**Description**

Members of the Ras-related superfamily of GTP binding proteins, which includes Ras, Rho, Rab and ARF subfamilies, exhibit 30-50% similarity with Ras p21. Rab proteins play an important role for either in endocytosis or in biosynthetic protein transport. The possibility that Rab proteins might also direct the exocytosis from secretory vesicles to the plasma membrane is supported by the observation that in yeast, the SEC4 protein, which is 40% similar to Rab proteins, is associated with secretory vesicles. Rab proteins located on the cytoplasmic face of organelles and vesicles, rab proteins are involved in intracellular membrane fusion reactions. Rab25 was cloned from a gastric parietal cell cDNA library and is expressed in epithelial tissues such as the gastrointestinal mucosae, kidney, and lung, which encoded a protein of 28 kDa.

**Immunogen**

Purified recombinant fragment of Rab25 expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**Rab25 Antibody - Additional Information**

**Gene ID** 57111

**Other Names**

Ras-related protein Rab-25, CATX-8, RAB25, CATX8

**Dilution**

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

FC~~1/200 - 1/400

ICC~~N/A

E~~N/A

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Rab25 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Rab25 Antibody - Protein Information

**Name** RAB25 ([HGNC:18238](#))

**Synonyms** CATX8

### Function

The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different set of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion (By similarity). RAB25 regulates epithelial cell differentiation, proliferation and survival, thereby playing key roles in tumorigenesis (PubMed:<a href="http://www.uniprot.org/citations/17925226" target="\_blank">17925226</a>). Promotes invasive migration of cells in which it functions to localize and maintain integrin alpha-V/beta-1 at the tips of extending pseudopodia (PubMed:<a href="http://www.uniprot.org/citations/17925226" target="\_blank">17925226</a>). Involved in the regulation of epithelial morphogenesis through the control of CLDN4 expression and localization at tight junctions (By similarity). May selectively regulate the apical recycling pathway (By similarity). Together with MYO5B regulates transcytosis (By similarity).

### Cellular Location

Cell membrane; Lipid-anchor; Cytoplasmic side. Cytoplasmic vesicle. Cell projection, pseudopodium membrane. Note=Colocalizes with integrin alpha- V/beta-1 in vesicles at the pseudopodial tips. Colocalizes with RAB11A in subapical vesicles (By similarity). {ECO:0000250|UniProtKB:P46629, ECO:0000269|PubMed:17925226}

### Tissue Location

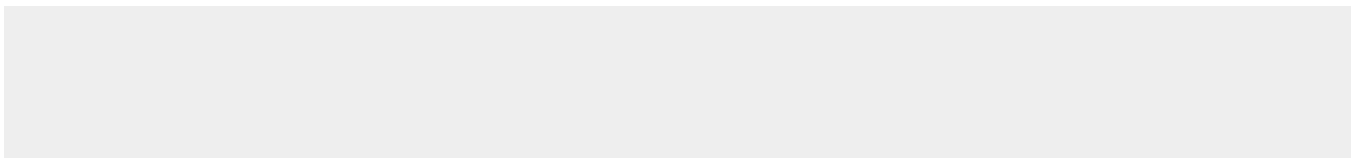
Expression is restricted to epithelial cells (PubMed:15502842). Expressed in ovarian epithelium (NOE) and breast tissue. Expressed in ovarian cancer; expression is increased relative to NOE cells. Expression in ovarian cancer is stage dependent, with stage III and stage IV showing higher levels than early stage cancers Expressed in breast cancer; expression is increased relative to normal breast tissue.

## Rab25 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Rab25 Antibody - Images



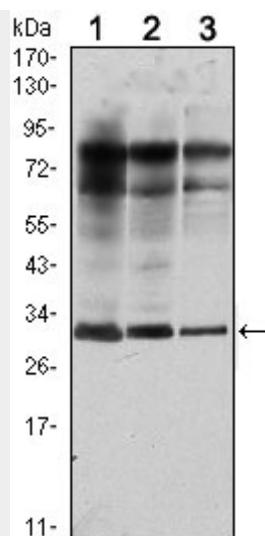


Figure 1: Western blot analysis using Rab25 mouse mAb against MCF-7 (1), T47D (2) and GC7901 (3) cell lysate.

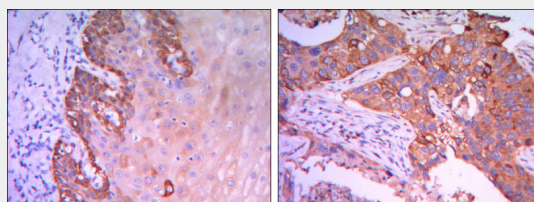


Figure 2: Immunohistochemical analysis of paraffin-embedded esophagus tissues (left) and human lung cancer (right) using Rab25 mouse mAb with DAB staining.

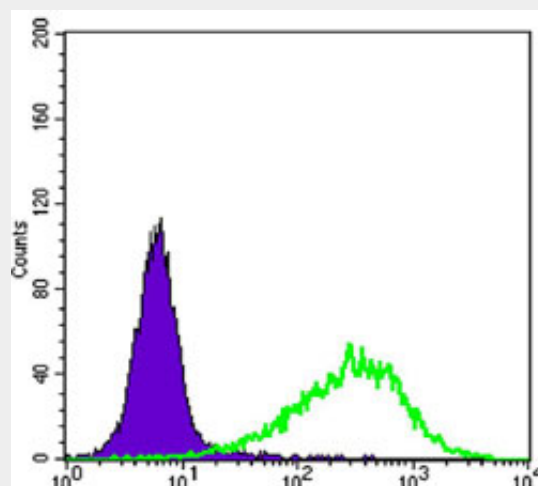


Figure 3: Flow cytometric analysis of NIH/3T3 cells using Rab25 mouse mAb (green) and negative control (purple).

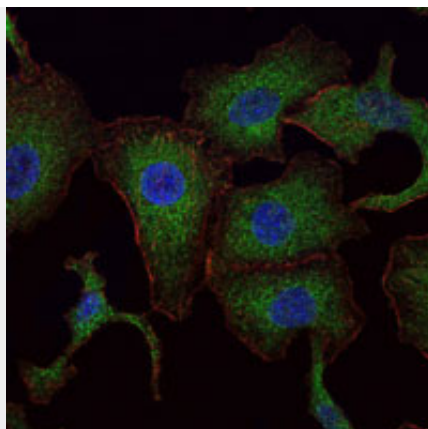


Figure 4: Immunofluorescence analysis of A549 cells using RAB25 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

#### **Rab25 Antibody - References**

1. JR Goldenring, KR Shen, HD Vaughan. et al. J. Biol. Chem,1993,268(25):18419-18422
2. Xiaoye W, Ravindra K, Jennifer N. et al. J. Biol. Chem,2000,275(37):29138-29146