

Rab 25 (3F12F3): sc-65978

BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies. Increasing data suggests an important role for Rab proteins in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves the movement of carrier vesicles and requires Rab protein function. Rab proteins are also an integral part of endocytic pathways. Rab 25, also known as CATX-8 or Rab 11C, is a member of the Rab family of proteins that is exclusively expressed in epithelial cells and participates in apical vesicle trafficking. Rab 25 is overexpressed in ovarian and breast cancer cells and has been associated with metastasis and tumor aggressiveness. The forced expression of Rab 25 in ovarian and breast cancer cells increases cell proliferation *in vivo*.

CHROMOSOMAL LOCATION

Genetic locus: RAB25 (human) mapping to 1q22; Rab25 (mouse) mapping to 3 F1.

SOURCE

Rab 25 (3F12F3) is a mouse monoclonal antibody raised against purified recombinant Rab 25 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab 25 (3F12F3) is available conjugated to agarose (sc-65978 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65978 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65978 PE), fluorescein (sc-65978 FITC), Alexa Fluor® 488 (sc-65978 AF488), Alexa Fluor® 546 (sc-65978 AF546), Alexa Fluor® 594 (sc-65978 AF594) or Alexa Fluor® 647 (sc-65978 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-65978 AF680) or Alexa Fluor® 790 (sc-65978 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Rab 25 (3F12F3) is recommended for detection of Rab 25 of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Rab 25 siRNA (h): sc-76325, Rab 25 siRNA (m): sc-76326, Rab 25 shRNA Plasmid (h): sc-76325-SH, Rab 25 shRNA Plasmid (m): sc-76326-SH, Rab 25 shRNA (h) Lentiviral Particles: sc-76325-V and Rab 25 shRNA (m) Lentiviral Particles: sc-76326-V.

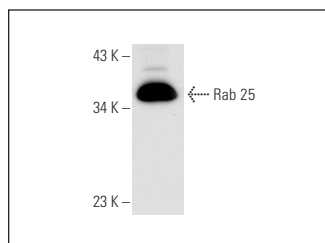
Molecular Weight of Rab 25: 24 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

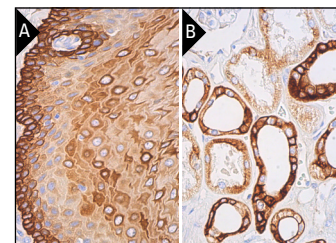
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Rab 25 (3F12F3): sc-65978. Western blot analysis of Rab 25 expression in K-562 whole cell lysate.



Rab 25 (3F12F3): sc-65978. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic and membrane staining of squamous epithelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and membrane staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

1. Clausen, M.J., et al. 2016. Rab 25 expression is epigenetically down-regulated in oral and oropharyngeal squamous cell carcinoma with lymph node metastasis. *Epigenetics* 11: 653-663.
2. Boeve, K., et al. 2021. Cortactin expression assessment improves patient selection for a watchful waiting strategy in pT1cN0-staged oral squamous cell carcinomas with a tumor infiltration depth below 4 mm. *Head Neck* 43: 2688-2697.
3. Zhao, L., et al. 2022. Studies of the efficacy of low-dose apatinib monotherapy as third-line treatment in patients with metastatic colorectal cancer and apatinib's novel anticancer effect by inhibiting tumor-derived exosome secretion. *Cancers* 14: 2492.

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.