

## Recombinant Mouse Rab3a Protein, Myc/DDK-tagged

**Cat. No.** Rab3a-5317M    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>Product Overview</b> | Purified recombinant protein of mouse full-length RAB3A, member RAS oncogene family (Rab3a), with C-terminal MYC/DDK tag, expressed in HEK293T cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | <p>Small GTP-binding protein that plays a central role in regulated exocytosis and secretion. Controls the recruitment, tethering and docking of secretory vesicles to the plasma membrane. Upon stimulation, switches to its active GTP-bound form, cycles to vesicles and recruits effectors such as RIMS1, RIMS2, Rabphilin-3A/RPH3A, RPH3AL or SYTL4 to help the docking of vesicles onto the plasma membrane. Upon GTP hydrolysis by GTPase-activating protein, dissociates from the vesicle membrane allowing the exocytosis to proceed. Stimulates insulin secretion through interaction with RIMS2 isoform RIMS2 and RPH3AL effectors in pancreatic beta cells. Regulates calcium-dependent lysosome exocytosis and plasma membrane repair (PMR) via the interaction with 2 effectors, SYTL4 and myosin-9/MYH9. Acts as a positive regulator of acrosome content secretion in sperm cells by interacting with RIMS1. Plays a role in the regulation of dopamine release by interacting with synaptotagmin I/SYT.</p> |
| <b>Molecular Mass</b>   | 25 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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handling conditions. Avoid repeated freeze-thaw cycles.

**Storage** Store at -80 centigrade after receiving vials.

**Concentration** >50 µg/mL as determined by microplate BCA method

**Storage Buffer** 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

## GENE INFORMATION

**Gene Name** Rab3a RAB3A, member RAS oncogene family [ Mus musculus (house mouse) ]

**Official Symbol** Rab3a

**Synonyms** RAB3A; RAB3A, member RAS oncogene family; ras-related protein Rab-3A

**Gene ID** 19339

**mRNA Refseq** NM\_009001

**Protein Refseq** NP\_033027

**UniProt ID** P63011

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