

Active Recombinant Full Length Mouse RAB3A Protein, GST/His-tagged

Cat. No. RAB3A-708M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse RAB3A protein (NM_009001) was expressed in E. coli with GST-His tag.
Species	Mouse
Source	E.coli
ProteinLength	1-220 a.a.
Description	N-terminal tagged Rab3A is a small GTPase that belongs to the Ras superfamily. Rab proteins play an important role in various aspects of membrane traffic, including cargo selection, vesicle budding, vesicle motility, tethering, docking, and fusion. Rab3A, a member of the Rab small G protein family, is involved in the process of Ca²⁺-dependent neurotransmitter release. Rab3A activity is regulated by a GDP/GTP exchange protein (Rab3 GEP), a Rab GDP dissociation inhibitor (Rab GDI), and a GTPaseactivating protein (Rab3 GAP). The Rab3A recycling is coupled with synaptic vesicle trafficking as follows: (i) GDP-Rab3A forms an inactive complex with Rab GDI and stays in the cytosol of nerve terminals. (ii) GDPRab3A released from Rab GDI is converted to GTPRab3A by Rab3 GEP. (iii) GTP-Rab3A binds effector molecules, Rabphilin-3 and Rim, localized at synaptic vesicles and the active zone, respectively. These complexes facilitate translocation and docking of the synaptic vesicles to the active zone. The GST-Tag facilitates the protein's application in typical GST pull-down assays.

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Form	50 mM Tris-HCl pH 8.0, 100 mM NaCl, 10 mM MgCl ₂ and 2 mM beta-mercaptoethanol
Bio-activity	100 pmol of protein can bind > 80 pmol of GDP.
Molecular Mass	54 kDa
Purity	> 90 % (SDS-PAGE)
Storage	Store at -80 centigrade, avoid freeze/thaw cycles.

GENE INFORMATION

Gene Name	Rab3a RAB3A, member RAS oncogene family [Mus musculus]
Official Symbol	RAB3A
Synonyms	RAB3A
Gene ID	19339
mRNA Refseq	NM_009001.6
Protein Refseq	NP_033027.1
UniProt ID	P63011

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