

Rab3a

Recombinant Mouse Ras-related protein Rab-3A, Active, GST-His-tag

Catalog No.	CSI13780	Quantity:	50 µg
Alternate Names:	RAB3A, member RAS oncogene family, Ras-associated, small GTP-binding protein		
Description:	<p>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 TPaseactivating 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) GDP-Rab3A released from Rab GDI is converted to GTP-Rab3A 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.</p>		
UniProt ID:	P63011		
Gene ID:	19339		
Source:	<i>E. coli</i>		
Molecular Weight:	54 kDa		
Formulation:	50 mM Tris-HCl, 100 mM NaCl, 10 mM MgCl ₂ , and 2 mM beta-mercaptoethanol, pH 8.0		
Purity:	> 90% by SDS-PAGE		
Activity:	100 pmol of protein can bind > 80 pmol of GDP.		
Storage & Stability:	Store at -80°C for up to 1 year. Upon initial thaw, prepare aliquots and store at -80°C. Avoid freeze-thaw cycles.		

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