

Rabggtα/Rabggtβ

Recombinant Rat GGTase-II, alpha and beta, Active

Catalog No.	CSI11658	Quantity:	50 µg
Alternate Names:	Geranylgeranyltransferase type-2, subunits alpha and beta, Rab geranylgeranyltransferase type-2		
Description:	<p>GGTase-II catalyzes the transfer of geranylgeranyl moiety onto two C-terminal cysteines of Rab proteins. Composed of an alpha and beta heterodimer and requires Rab escort protein for its catalytic activity.</p> <p>GGTase-II was shown to exhibit higher affinity towards geranylgeranyl pyrophosphate ($K_d = 8$ nM) than farnesyl pyrophosphate ($K_d = 60$ nM). Like FTase and GGTase-I, RabGGT functions as a heterodimer. The alpha subunit has 27% identity to that of CaaX prenylases but contains additional domains, while the beta subunit shows 29% identity to that of FTase. The protein substrates of RabGGT have heterogeneous C termini that usually contain two cysteine residues (CXC), both of which are modified by geranylgeranyl groups. Unlike the CaaX prenylases, RabGGT requires specific accessory proteins known as REPs to guide the interaction with its targets. Some farnesyltransferase inhibitors (FTIs) were identified to inhibit RabGGT activity and induce p53 independent apoptosis in <i>C. elegans</i>.</p>		
UniProt ID:	Q08602 alpha subunit Q08603 beta subunit		
Concentration:	typically > 3 mg/ml		
Source:	<i>E. coli</i>		
Molecular Weight:	50 kDa alpha subunit 38 kDa beta subunit		
Formulation:	50 mM Tris-HCl, 40 mM NaCl, 5 mM DTT, 5 µM ZnCl ₂ , pH 7.2		
Purity:	> 90% as determined by SDS-PAGE analysis.		
Biological Activity:	1 mol of enzyme will support conjugation of 2 mol of geranylgeranyl moieties to C-terminal cysteine of Rab7 GTPase in the presence of REP-1 in 2 minutes at 37°C		
Storage & Stability:	Stable for 1 year at -80°C. Upon initial thaw, prepare working aliquots and store at -80°C. Avoid repeated freeze-thaw cycles.		

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