DATA SHEET

Jena Bioscience

GGTase-I

Protein geranylgeranyltransferase type I
rat, recombinant, *E. coli*
α- and β-subunit

Cat. No.	Amount
PR-101	50 µg

For general laboratory use.

Shipping: shipped on dry ice

Storage Conditions: store at -80 °C

Additional Storage Conditions: avoid freeze/thaw cycles

Shelf Life: 12 months

Molecular Weight: α: 44 kDa, β: 38 kDa

Accession number: NM_031082

Purity: > 90 % (SDS-PAGE)

Form: liquid (Supplied in 50 mM HEPES pH 7.4, 40 mM NaCl, 1 mM TECP and 5 µM $ZnCl_2$)

Description:
GGTase-I (Geranylgeranyltransferase-I) catalyzes the transfer of the farnesyl and geranylgeranyl groups from farnesyl and geranylgeranyl-diphosphate to proteins containing a C-terminal CaaX motif, where 'C' is a conserved cysteine that is the site of farnesyl modification, 'a' is usually an aliphatic amino acid, and 'X' is leucine or phenylalanine. Farnesyltransferase (FT) and GGTase-I are closely related, sharing a common α subunit and 30% identity in their β subunits.

Activity:
1 pmol of GGTase-I will transfer 5 pmol of Farnesyl to RhoA in 15 min at 37°C.

Selected References:

Eckert *et al.* (2009) Regulation of the brain isoprenoids farnesyl- and geranylgeranylpyrophosphate is altered in male Alzheimer patients. *Neurobiology of Disease* **35 (2)**:251-257.

Watanabe *et al.* (2008) Inhibitors of Protein Geranylgeranyltransferase I and Rab Geranylgeranyltransferase Identified from a Library of Allenoate-derived Compounds. *J. Biol. Chem.* **283 (15)**:9571-9579.

Hooff *et al.* (2008) Isoprenoid quantitation in human brain tissue: a validated HPLC–fluorescence detection method for endogenous farnesyl- (FPP) and geranylgeranylpyrophosphate (GGPP). *Analytical and Bioanalytical Chemistry.* **392 (4)**:673-680.

Lackner *et al.* (2005) Chemical genetics indentifies Rab geranylgeranyl transferase as an apoptotic target of farnesyl transferase inhibitors. *Cancer Cell.* **7**:325.

Yokoyama *et al.* (1993) Purification of a mammalian protein geranylgeranyltransferase. Formation and catalytic properties of an enzyme-geranylgeranyl pyrophosphate complex. *J. Biol. Chem.* **268**:4055.