



Recombinant Protein Technical Manual  
Recombinant Human GNGT1/GNG1 Protein (His Tag)  
RPES3734

#### Product Data:

**Product SKU:** RPES3734

**Size:** 20µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P63211

#### Protein Information:

**Molecular Mass:** 9.9kDa

**AP Molecular Mass:** 9.0 kDa

**Tag:** N-His

**Bio-activity:**

**Purity:** > 90 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.5

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** GNG1

## Immunogen Information:

**Sequence:** Pro 2-Cys 71

## Background:

GNGT1 is a subunit of transducin. Heterotrimeric G proteins consist of alpha, beta, and gamma subunits. They are membrane bound GTPases that are linked to 7-TM receptors. They function as signal transducers for the 7-transmembrane-helix G protein-coupled receptors. They are involved as a modulator or transducer in various transmembrane signaling systems. G proteins are bound to GDP in the 'off' state. GNGT1 is the gamma subunit of transducin. Ligand-receptor binding results in detachment of the G protein, switching it to an 'on' state and permitting G $\alpha$  activation of second messenger signalling cascades. There are several types of G $\alpha$  proteins; in addition, some G $\beta\gamma$  subunits have active functions. G $\beta\gamma$  coupled to H1 receptors can activate PLA2 and G $\beta\gamma$  coupled to M1 receptors can activate KIR channels. The beta and gamma chains are required for the GTPase activity, for replacement of GDP by GTP, and for G protein-effector interaction.