

Human GNG13 Protein (His Tag)

Catalog Number: 13173-H07E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

G(gamma)13; h2-35; 1500031D04Rik; AB030194; Ggamma13

Protein Construction:

A DNA sequence encoding the mature form of human GNG13 (Q9P2W3) (Met 1-Cys 64) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human GNG13 consists of 80 amino acids and has a calculated molecular mass of 9.7kDa. It migrates as an approximately 9& 18kDa doublet in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

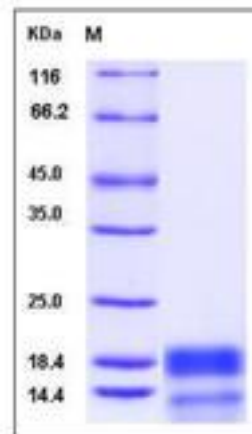
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

GNG13 is a subunit of heterotrimeric G proteins which consist of alpha, beta, and gamma subunits. Heterotrimeric G proteins 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. Each G protein is composed of an alpha-, beta- and gamma-subunit and is bound to GDP in the 'off' state. Ligand-receptor binding results in detachment of the G protein, switching it to an 'on' state and permitting Galpha activation of second messenger signalling cascades. There are several types of Galpha proteins; in addition, some Gbetagamma subunits have active functions. Gbetagamma coupled to H1 receptors can activate PLA2 and Gbetagamma 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. GNG13 is a gamma subunit that is expressed in taste, retinal, and neuronal tissues and plays a key role in taste transduction.

References

- 1.Huang L, *et al.* (2000) Ggamma13 colocalizes with gustducin in taste receptor cells and mediates IP3 responses to bitter denatonium. *Nat Neurosci.* 2 (12): 1055-62.
- 2.Blake B L, *et al.* (2001) G beta association and effector interaction selectivities of the divergent G gamma subunit G gamma(13). *J Biol Chem.* 276 (52): 49267-74.
- 3.Bonaldo MF, *et al.* (1997) Normalization and subtraction: two approaches to facilitate gene discovery. *Genome Res.* 6 (9): 791-806.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>