

Product datasheet

Recombinant Rat GNAS (mutated Q212L + D280N) protein ab90410

Description

Product name	Recombinant Rat GNAS (mutated Q212L + D280N) protein
Expression system	Baculovirus infected Sf9 cells
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Rat

Specifications

Our [Abpromise guarantee](#) covers the use of **ab90410** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications Functional Studies

Form Liquid

Additional notes

In contrast to all other known G protein alpha D/N mutants, the exchange of Asp280 to Asn280 in G α S does not lead to an inactivation in nucleotide binding. Mutation of Gln212 to Leu212 inhibits the intrinsic GTPase activity, resulting in a constitutively activated G α S. This mutation also increases the GDP-affinity of G α S.

Preparation and Storage

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.
pH: 7.40
Constituents: 0.11875% Magnesium chloride, 1.185% Tris HCl, 0.0292% EDTA

General Info

Relevance Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems. The G α s protein is involved in hormonal regulation of adenylate cyclase: it activates the cyclase in response to beta-adrenergic stimuli. Alternative

splicing of downstream exons of the GNAS gene is observed, which results in different forms of the stimulatory G protein alpha subunit, a key element of the classical signal transduction pathway linking receptor-ligand interactions with the activation of adenylyl cyclase and a variety of cellular responses. Multiple transcript variants have been found for this gene, but the full-length nature and/or biological validity of some variants have not been determined. Mutations in this gene result in pseudohypoparathyroidism type 1a, pseudohypoparathyroidism type 1b, Albright hereditary osteodystrophy, pseudopseudohypoparathyroidism, McCune-Albright syndrome, progressive osseous heteroplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors.

Cellular localization

Cell Membrane

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