

Product Name: G α q Protein

Synonyms: Guanine nucleotide binding protein, alpha q polypeptide, Gnaq, Galphaq, Gql, Dsk1, Dsk10

Catalogue Number: 10148

Source: Human, recombinant full length, His₆-tag

Expression Host: sf9 cells

Molecular Weight: 42 kDa

Purity: >95% by SDS-PAGE

Introduction: Heterotrimeric G proteins are essential cellular signal transducers. G α_q is a member of the Gq subfamily of G proteins. G α_q is known to stimulate phospholipase C. Other biochemical and physiological functions of G α_q are being explored.

Amino Acid Sequence (1-359)

MTLESIMACCLSEEAKEARRINDEIERQLRRDKRDARR
ELKLLLLLGTGESGKSTFIKQMRI IHGSGYSDEDKRGFT
KLVYQNI FTAMQAMIRAMD TLKIPYKYEHNKAHAQLVR
EVDVEKVS AFENPYVDAIKSLWNDPGIQECYDRRREYQ
LSDSTKY YLNDLDRVADPAYLPTQQDVL RVRVPTTGII
EYPFDLQSVIFRMVDVGGQRSE R R KWIHC FENVT SIMF
LVALSEYDQVLVESDNENRMEESKALFR T I I TYPWFQN
SSVILFLNKKDLLEEKIMYSHLV D YFPEYDGPQRDAQA
AREFILKMFVDLNPDSDKI IYSHFTCATDTENIRFVFA
AVKDTILQLNLKEYNLV

Properties

Physical Appearance(form): Lyophilized Powder from 20 mM Tris-HCl, pH 7.4, containing 100 mM NaCl.

Physical Appearance(color): White

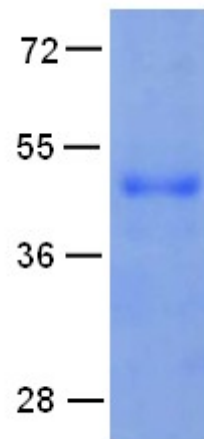
Solubility (Color): colorless

Solubility (Turbidity): clear, 10 mg/mL H₂O

Storage: -80°C

Preparation Instructions

Centrifuge the vial before open the cap and reconstitute in water. Adding of 10 mM β -mercaptoethanol or 1 mM DTT into the solution to protect the protein is recommended and using of non-ionic detergents such as n-Dodecyl β -D-maltoside(DoDM) or polyethylene detergents (e.g. C₁₂E₁₀) also help to stabilize the protein. Avoid repeated freezing and thawing after reconstitution.



References

1. Dong, Q. et al., Genomics 30: 470-475, 1995.
2. Adams, J. W. et al., Proc. Nat. Acad. Sci. 95: 10140-10145, 1998.
3. Offermanns, S. et al., Nature 389: 183-186, 1997.
4. Santagata, S. et al., Science 292: 2041-2050, 2001.
5. Van Raamsdonk, C. D. et al., Nature 457: 599-602, 2009.
6. Wirth, A. et al., Nature Med. 14: 64-68, 2008.

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