Datasheet for ABIN7564753

GRK5 Protein (AA 1-590) (His tag)

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Overview

Quantity:	1 mg
Target:	GRK5
Protein Characteristics:	AA 1-590
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GRK5 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat Grk5 Protein expressed in mammalien cells.
Sequence:	MELENIVANT VLLKAREGGG GKRKGKSKKW KEILKFPHIS QCEDLRRTID RDYYSLCDKQ PIGRLLFRQF CETRPGLECY IQFLDLVAEY EITPDENLGA KGKEIMTKYL TPKSPVFIAQ VGQDLVSQTE KKLLQSPCKE LFSACAQSVH DYLKGDPFHE YLDSMYFDRF LQWKWLERQP VTKNTFRQYR VLGKGGFGEV CACQVRATGK MYACKRLEKK RIKKRKGESM ALNEKQILEK VNSQFVVNLA YAYETKDALC LVLTIMNGGD LKFHIYNMGN PGFEEERALF YAAEILCGLE DLHRENTVYR DLKPENILLD DYGHIRISDL GLAVKIPEGD LIRGRVGTVG YMAPEVLNNQ RYGLSPDYWG LGCLIYEMIE GQSPFRGRKE KVKREEVDRR VLETEEVYSS KFSEEAKSIC NMLLTKDSKQ RLGCQEEGAA EVKRHPFFRN MNFKRLEAGM LDPPFVPDPR AVYCKDVLDI EQFSTVKGVN LDHTDDDFYS KFSTGSVPIP WQNEMIETEC FKELNVFGPN GTLSPDLNRS QPPEPPKKGL FHRLFRRQHQ SNSKSSPTPK TSCNHRINSN HINSNSTGSS **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a**

Product Details

	different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	GRK5
Alternative Name:	Grk5 (GRK5 Products)
Background:	G protein-coupled receptor kinase 5 (EC 2.7.11.16) (G protein-coupled receptor kinase GRK5),FUNCTION: Serine/threonine kinase that phosphorylates preferentially the activated forms of a variety of G-protein-coupled receptors (GPCRs). Such receptor phosphorylation initiates beta-arrestin-mediated receptor desensitization, internalization, and signaling events leading to their down-regulation. Phosphorylates a variety of GPCRs, including adrenergic receptors, muscarinic acetylcholine receptors (more specifically Gi-coupled M2/M4 subtypes), dopamine receptors and opioid receptors. In addition to GPCRs, also phosphorylates various substrates: Hsc70-interacting protein/ST13, TP53/p53, HDAC5, and arrestin-1/ARRB1. Phosphorylation of ARRB1 by GRK5 inhibits G-protein independent MAPK1/MAPK3 signaling downstream of 5HT4-receptors. Phosphorylation of HDAC5, a repressor of myocyte enhancer factor 2 (MEF2) leading to nuclear export of HDAC5 and allowing MEF2-mediated transcription.

Target Details

	Phosphorylation of TP53/p53, a crucial tumor suppressor, inhibits TP53/p53-mediated apoptosis. Phosphorylation of ST13 regulates internalization of the chemokine receptor. Phosphorylates rhodopsin (RHO) (in vitro) and a non G-protein-coupled receptor, LRP6 during Wnt signaling (in vitro). {ECO:0000269|PubMed:10624964, ECO:0000269|PubMed:14565944, ECO:0000269|PubMed:18711143, ECO:0000269|PubMed:19478075}.
Molecular Weight:	67.7 kDa
UniProt:	Q8VEB1
Pathways:	Myometrial Relaxation and Contraction, Regulation of G-Protein Coupled Receptor Protein Signaling

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months