

Recombinant Human RGS14 protein ab130048

1 图像

描述

产品名称	重组人RGS14蛋白
纯度	> 80 % SDS-PAGE. ab130048 was purified by using conventional chromatography techniques.
表达系统	Escherichia coli
Accession	<u>O43566</u>
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Human
序列	<pre> MGSSHHHHHH SSGLVPRGSH MPGKPKHLGV PNGRMVLAVS DGELSSTTGP QQGEGRGSS LSIHSLPSGP SSPFPTEEQP VASWALSFER LLQDPLGLAY FTEFLKKEFS AENVTFWKAC ERFQQIPASD TQQLAQEARN IYQEFLSSQA LSPVNIDRQA WLGEEVLAEP RPDMFRAQQL QIFNLMKFDS YARFVKSPY RECLLAEAEQ RPLREPGSSR LGSPDATRKK PKLKPGKSLP LGVEELGQLP PVEGPGGRPL RKSFRRELGG TANAALRRES QGSLNSSASL DLGFLAFVSS KSESHRKS LG STEGESESRP GKYCCVYLPD GTASLALARP GLTIRDMLAG ICEKRGLSLP DIKVYLVGNE QALVLDQDCT VLADQEVRL E NRITFELELT ALERVVRISA KPTKRLQEAL QPILEKHGLS PLEVVLHRPG EKQPLDLGKL VSSVAAQRLV LDTLPGVKIS KARDKSPCRS QGCPPRTQDK ATHPPPASPS SLVKVPSSAT GKRQTCDIEG LVELLN RVQS SGAHDQRGLL RKEDLVLP EF LQLPAQGPSS EETPPQTKSA AQPIGGSLNS TTDSAL </pre>
预测分子量	64 kDa including tags
氨基酸	1 to 566
标签	His tag N-Terminus

技术指标

Our **Abpromise guarantee** covers the use of **ab130048** in the following tested applications.

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

应用 SDS-PAGE

形式 Liquid

制备和贮存

稳定性和存储 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.50

Constituents: 0.02% DTT, 0.32% Tris HCl, 10% Glycerol (glycerin, glycerine), 1.17% Sodium chloride

常规信息

功能 Acts as a regulator of G protein signaling (RGS). Modulates G protein alpha subunits nucleotide exchange and hydrolysis activities by functioning either as a GTPase-activating protein (GAP), thereby driving G protein alpha subunits into their inactive GDP-bound form, or as a GDP-dissociation inhibitor (GDI). Confers GDI activity on G(i) alpha subunits GNAI1 and GNAI3, but not G(o) alpha subunit GNAO1 and G(i) alpha subunit GNAI2. Confers GAP activity on G(o) alpha subunit GNAI0 and G(i) alpha subunits GNAI2 and GNAI3. May act as a scaffold integrating G protein and Ras/Raf MAPkinase signaling pathways. Inhibits platelet-derived growth factor (PDGF)-stimulated ERK1/ERK2 phosphorylation; a process depending on its interaction with HRAS1 and that is reversed by G(i) alpha subunit GNAI1. Acts as a positive modulator of microtubule polymerisation and spindle organization through a G(i)-alpha-dependent mechanism. Plays a role in cell division. Probably required for the nerve growth factor (NGF)-mediated neurite outgrowth. May be involved in visual memory processing capacity and hippocampal-based learning and memory.

序列相似性 Contains 1 GoLoco domain.
Contains 2 RBD (Ras-binding) domains.
Contains 1 RGS domain.

结构域 The RGS domain is necessary for GTPase-activating protein (GAP) activity for G subunits and localization to the nucleus and centrosomes.
The GoLoco domain is necessary for GDP-dissociation inhibitor (GDI) activity, translocation out of the nucleus and interaction with G(i) alpha subunits GNAI1, GNAI2 and GNAI3.
The RBD domains are necessary for localization to the nucleus and centrosomes.

翻译后修饰 Phosphorylated by PKC. Phosphorylation is increased in presence of forskolin and may enhance the GDI activity on G(i) alpha subunit GNAI1.

细胞定位 Nucleus. Nucleus > PML body. Cytoplasm. Membrane. Cell membrane. Cytoplasm > cytoskeleton > centrosome. Cytoplasm > cytoskeleton > spindle. Cytoplasm > cytoskeleton > spindle pole. Cell projection > dendrite. Cell projection > dendritic spine. Cell junction > synapse > postsynaptic cell membrane > postsynaptic density. Associates with the perinuclear sheaths of microtubules (MTs) surrounding the pronuclei, prior to segregating to the astral mitotic apparatus and subsequently the barrel-shaped cytoplasmic bridge between the nascent nuclei of the emerging 2-cell embryo. Localizes to a perinuclear compartment near the microtubule-organizing center (MTOC). Expressed in the nucleus during interphase and segregates to the centrosomes and astral MTs

during mitosis. Relocalizes to the nucleus in PML nuclear bodies in response to heat stress. Colocalizes with RIC8A in CA2 hippocampal neurons. Localizes to spindle poles during metaphase. Shuttles between the nucleus and cytoplasm in a CRM1-dependent manner. Recruited from the cytosol to the plasma membrane by the inactive GDP-bound forms of G(i) alpha subunits GNAI1 and GNAI3. Recruited from the cytosol to membranes by the active GTP-bound form of HRAS1. Colocalizes with G(i) alpha subunit GNAI1 and RIC8A at the plasma membrane. Colocalizes with BRAF and RAF1 in both the cytoplasm and membranes.

图片



15% SDS-PAGE analysis of 3 µg of Human RGS14 protein (ab130048)

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