

Datasheet for ABIN7564584

RAPGEF2 Protein (AA 1-1496) (His tag)[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	RAPGEF2
Protein Characteristics:	AA 1-1496
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAPGEF2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Rapgef2 Protein expressed in mammalien cells.
Sequence:	MKPLAAPANH GVLGQQEKQS LPADFTKLHL TDSLHPQVTH VSSSHSGCSI TSDSGSSSL DIYQATESEA GMDLGLPE TAVDSEDDDD EEDIERASDP LMSRDIVRDC LEKDPIDRTD DDIEQLLEFM HQLPAFANMT MSVRRELCV MVFAVVERAG TIVLNDGEEL DSWSVILNGS VEVTYPDGKA EILCMGNSFG VSPTMDKEYM KGMRTKVDD CQFVCIAQQD YCRILNQVEK NMQVVEEAGE IVMVKEHREL DRTGTRKGHI VIKGTSERLT MHLVEEHSV DPTFIEDFLL TYRTFLSSPM EVGKKLEWF NDPSLRDKVT RVLLWVNNH FNDFEGDPAM TRFLEEFENN LEREKMGGHL RLLNIACAAK AKRRLMTLTK PSREAPLPI LLGGSEKGF IFVDSVDS KATEAGLKRQ DQILEVNGQN FENIQLSKAM EILRNTHLS ITVKTNLFV KELLTRLSEE KRNAPHLPK IGDIKKASRY SIPDLAVDVE QVIGLEKVNK KSKANTVGGR NKLKILDKT RISILPQKPY NDIGIGQSQD DSIVGLRQTK HIPAALPVSQ TLSSSNPDLL QSHHRILDFS TTPDLPDQVL RVFKADQQR YIMISKDTTA KEVVIQAIRE FAVTATPEQY SLCEVSVTPE

GVIKQRRLPD QLSKLADRIQ LSGRYYLKNN METETLCSDE DAQELLRESQ ISLLQLSTVE
VATQLSMRNF ELFRNIEPTE YIDDLFKLKS KTSCANLKKF EEVINQETFW VASEILRETN
QLKRMKIIKH FIKIALHCRE CKNFNMFAL ISGLNLAPVA RLRTTWEKLP NKYEKLFQDL
QDLFDPSRNM AKYRNVLSGQ NLQPPVIPLF PVIKDLTFL HEGNDSKVDG LVNFEKLRMI
AKEIRHVGRM ASVNMDPALM FRTRKKKWRS LGSLSQGSAN ATVLDDVAQTG GHKKRVRSS
FLNAKKLYED AQMARKVKQY LSNLELEMDE ESLQTLSQLC EPATSTLPKN PGDKKPKVKE
TSPVAPRAGP QQKVQPQPL AQPQPPHKVS QGLQVPAVSL YPSRKKVPVK DLPPFGINSP
QALKKILSLS EEGSLERHRK QAEDTISNAS SQLSSPPTSP QSSPRKGYAL ALSGTVDNFS
DSGHSEISSR SSIVSNSSFD SVPVSLHDER RQRHSVSIVE SNLGVGRMER RTLMEPDQYS
LGSYAPVSES RGLYAAATVI SSPSTEELSH DQGDRAFLDA ADSGRGWSWTS CSSGSHDNIQ
TIQHQRSWET LPFGHTHFDY SGDAASIWAS GGHMDQMMFS DHSTKYNRQN QSRESLEAQ
SRASWASSTG YWGEDSEGDG GTIKRRGGKD VSAEAESSM VPVTTEEAKP VPMPAHIAVT
PSTTKGLIAR KEGRYREPPP TPPGYVGIPI ADFPEGPCHP ARKPPDYNVA LQRSRMVARP
TEAPAPGQTP PAAAASRPGS KPQWHKPSDA DPRLAPFQPQ GFAGAEEDD EQVSAV **Sequence
without tag. The proposed Purification-Tag is based on experiences with the expression
system, a 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 mammalian 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: RAPGEF2

Alternative Name: Rapgef2 ([RAPGEF2 Products](#))

Background: Rap guanine nucleotide exchange factor 2 (Cyclic nucleotide ras GEF) (CNrasGEF) (Neural RAP guanine nucleotide exchange protein) (nRap GEP) (PDZ domain-containing guanine nucleotide exchange factor 1) (PDZ-GEF1) (RA-GEF-1) (Ras/Rap1-associating GEF-1),FUNCTION: Functions as a guanine nucleotide exchange factor (GEF), which activates Rap and Ras family of small GTPases by exchanging bound GDP for free GTP in a cAMP-dependent manner. Serves as a link between cell surface receptors and Rap/Ras GTPases in intracellular signaling cascades. Acts also as an effector for Rap1 by direct association with Rap1-GTP thereby leading to the amplification of Rap1-mediated signaling. Shows weak activity on HRAS. It is controversial whether RAPGEF2 binds cAMP and cGMP or not. Its binding to ligand-activated beta-1 adrenergic receptor ADRB1 leads to the Ras activation through the G(s)-alpha signaling pathway. Involved in the cAMP-induced Ras and Erk1/2 signaling pathway that leads to sustained inhibition of long term melanogenesis by reducing dendrite extension and melanin synthesis. Provides also inhibitory signals for cell proliferation of melanoma cells and promotes their apoptosis in a cAMP-independent manner. Regulates cAMP-induced neuritogenesis by mediating the Rap1/B-Raf/ERK signaling through a pathway that is independent on both PKA and RAPGEF3/RAPGEF4. Involved in neuron migration and in the formation of the major forebrain fiber connections forming the corpus callosum, the anterior commissure and the hippocampal commissure during brain development. Involved in neuronal growth factor (NGF)-induced sustained activation of Rap1 at late endosomes and in brain-derived neurotrophic factor (BDNF)-induced axon outgrowth of hippocampal neurons. Plays a role in the regulation of embryonic blood vessel formation and in the establishment of basal junction integrity and endothelial barrier function. May be involved in the regulation of the vascular endothelial growth factor receptor KDR and cadherin CDH5 expression at allantois endothelial cell-cell junctions. {ECO:0000269|PubMed:16272156, ECO:0000269|PubMed:17826737, ECO:0000269|PubMed:19453629, ECO:0000269|PubMed:19635461, ECO:0000269|PubMed:21864586, ECO:0000269|PubMed:23800469}.

Molecular Weight: 166.4 kDa

UniProt: [Q8CHG7](#)

Pathways: [Neurotrophin Signaling Pathway](#)

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
