

Datasheet for ABIN3137522

GABBR1 Protein (AA 17-960) (rho-1D4 tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	GABBR1
Protein Characteristics:	AA 17-960
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GABBR1 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	GGAQTPNVTS EGCQIIHPPW EGGIRYRGLT RDQVKAINFL PVDYEIEYVC RGEREVVGP VRKCLANGSW TDMDTPSRCV RICKSYLTL ENGKVFLTGG DLPALDGARV DFRCDPDFHL VGSSRSICSQ GQWSTPKPHC QVNRTPHSER RAVYIGALFP MSGGWPGGQA CQPAVEMALE DVNSRRDILP DYELKLIHHD SKCDPGQATK YLYELLYNDP IKIILMPGCS SVSTLVAEAA RMWNLIVLSY GSSSPALSNR QRFPTFFRTH PSATLHNPTR VKLFEKWGWK KIATIQQTTE VFTSTLDDLE ERVKEAGIEI TFRQSFFSDP AVPVKNLKRQ DARIIVGLFY ETEARKVFCE VYKERLFGKK YVWFLIGWYA DNWFKTYDPS INCTVEEMTE AVEGHITTEI VMLNPANTRS ISNMTSQEFV EKLTKRLKRH PEETGGFQEA PLAYDAIWAL ALALNKTSGG GGRSGVRLED FNYYNQITD QIYRAMNSSF FEGVSGHVV DASGSRMAWT LIEQLQGGSY KKIGYYDSTK DDLWSKTDK WIGGSPPADQ TLVIKTRFL SQKLFISVSV LSSLGIVLAV VCLSFNIYNS HVRVYIQNSQP NLNNLTAVGC SLALAAVFPL GLDGYHIGRS QFPFVCQARL WLLGLGFSLG YGSMTKIWW VHTVFTKKEE KKEWRKTLEP WKLYATVGLL VGMDILTAL WQIVDPLHRT
-----------	---

IETFAKEEPK EDIDVSILPQ LEHCSSKKMN TWLGIFYGYK GLLLLLGIFL AYETKSVSTE
KINDHRAVGM AIYNVAVLCL ITAPVTMILS SQQDAAFAFA SLAIVFSSYI TLVVLFVPMK
RRLITRGEWQ SEAQDTMKTG SSTNNNEEEK SRLLEKENRE LEKIIAEKEE RVSELRHQLQ
SRQQIRSRRH PPTPPDPSGG LPRGPSEPPD RLSCDGSRVH LLYK

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Gabbr1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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 will ensure that you receive a correctly folded protein.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and

Product Details

Western blot.

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	GABBR1
Alternative Name:	Gabbr1 (GABBR1 Products)
Background:	<p>Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2. Within the heterodimeric GABA receptor, only GABBR1 seems to bind agonists, while GABBR2 mediates coupling to G proteins. Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors, such as adenylate cyclase. Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis. Calcium is required for high affinity binding to GABA. Plays a critical role in the fine-tuning of inhibitory synaptic transmission. Pre-synaptic GABA receptor inhibits neurotransmitter release by down-regulating high-voltage activated calcium channels, whereas postsynaptic GABA receptor decreases neuronal excitability by activating a prominent inwardly rectifying potassium (Kir) conductance that underlies the late inhibitory postsynaptic potentials. Not only implicated in synaptic inhibition but also in hippocampal long-term potentiation, slow wave sleep, muscle relaxation and antinociception. {ECO:0000269 PubMed:10773016}.</p>
Molecular Weight:	107.6 kDa Including tag.
UniProt:	Q9WV18
Pathways:	Positive Regulation of Peptide Hormone Secretion, cAMP Metabolic Process

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.
--------------------	--

Application Details

Comment: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value 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: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process