

Datasheet for ABIN3118439
KCNQ5 Protein (AA 1-932) (rho-1D4 tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	KCNQ5
Protein Characteristics:	AA 1-932
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNQ5 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MPRHHAGGEE GGAAGLWVKS GAAAAAAGGG RLGSGMKDVE SGRGRVLLNS AAARGDGLLL LGTRAATLGG GGGGLRESRR GKQGARMSLL GKPLSYTSSQ SCRRNVKYRR VQNYLYNVLE RPRGWAFIYH AFVFLLVFGC LILSVFSTIP EHTKLASSCL LILEFVMIVV FGLEFIIRIW SAGCCCRYRG WQGRLRFARK PFCVIDTIVL IASIAVVS AK TQGNIFATSA LRSLRFLQIL RMVRMDRRGG TWKLLGSVVY AHSKELITAW YIGFLVLIFS SFLVYLVEKD ANKEFSTYAD ALWWGTITLT TIGYGDKTPL TWLGRLLSAG FALLGISFFA LPAGILGSGF ALKVQEQHRQ KHFEKRRNPA ANLIQCVWRS YAADEKSVSI ATWKPHLKAL HTCSPKKEQ GEASSSQKLS FKERV MASP RGQSIKSRQA SVGDRRSPST DITAEGSPTK VQKSWSFNDR TRFRPSRLRK SSQPKPVIDA DTALGTDDVY DEKGCQCDVS VEDLTPPLKT VIRAIRIMKF HVAKRKFKET LRPYDVKDVI EQYSAGHLDL LCRIKSLQTR VDQILGKGQI TSDKKSREKI TAEHETDDDL SMLGRVVKVE KQVQSIESKL DCLLDIYQQV LKGSASALA LASFQIPPFE CEQTSYQSP VDSKDLGSA QNSGCLSRST SANISRGLQF ILTPNEFSAQ TFYALSPTMH SQATQVPISQ
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SDGSAVAATN TIANQINTAP KPAAPTTLQI PPPLPAIKHL PRPETLHPNP AGLQESISDV
TTCLVASKEN VQVAQSNLTK DRSMRKSFDG GGETLLSVCP MVPKDLGKSL SVQNLIRSTE
ELNIQLSGSE SSGSRGSQDF YPKWRESKLF ITDEEVGPPEE TETDTFDAAP QPAREAAFAS
DSLRTGRSRS SQSICKAGES TDALSLPHVK LK

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.
- Human KCNQ5 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:	KCNQ5
Alternative Name:	KCNQ5 (KCNQ5 Products)
Background:	Probably important in the regulation of neuronal excitability. Associates with KCNQ3 to form a potassium channel which contributes to M-type current, a slowly activating and deactivating potassium conductance which plays a critical role in determining the subthreshold electrical excitability of neurons. May contribute, with other potassium channels, to the molecular diversity of a heterogeneous population of M-channels, varying in kinetic and pharmacological properties, which underlie this physiologically important current. Insensitive to tetraethylammonium, but inhibited by barium, linopirdine and XE991. Activated by niflumic acid and the anticonvulsant retigabine. Muscarine suppresses KCNQ5 current in Xenopus oocytes in which cloned KCNQ5 channels were coexpressed with M(1) muscarinic receptors.
Molecular Weight:	103.4 kDa Including tag.
UniProt:	Q9NR82

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.
Comment:	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