



Datasheet for ABIN3118686

TRPM5 Protein (AA 1-1165) (Strep Tag)



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1 Image

Overview

| | |
|-------------------------------|--|
| Quantity: | 1 mg |
| Target: | TRPM5 |
| Protein Characteristics: | AA 1-1165 |
| Origin: | Human |
| Source: | Tobacco (<i>Nicotiana tabacum</i>) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This TRPM5 protein is labelled with Strep Tag. |
| Application: | ELISA, SDS-PAGE (SDS), Western Blotting (WB) |

Product Details

Sequence: MQDVQGPRPG SPGDAEDRRE LGLHRGEVNF GGSGKCRGKF VRVPSGVAPS VLFDLLLAEW
HLPAPNLVVS LVGEEQPFAM KSWLRDVLRLK GLVKAQSTG AWILTSALRV GLARHVGQAV
RDHSLASTST KVRVVAVGMA SLGRVLHRRR LEEAQEDFPV HYPEDDGGSSQ GPLCSLDSNL
SHFILVEPGP PGKGDGLTEL RLRLEKHISE QRAGYGGTGS IEIPVLCLLV NGDPNTLERI
SRAVEQAAPW LILVGSGGIA DVLAALVNQP HLLVPKVAEK QFKEKFPSKH FSWEDIVRWT
KLLQNITSHQ HLLTVYDFEQ EGSEELDTVI LKALVKACKS HSQEPQDYLD ELKLAVAWDR
VDIAKSEIFN GDVEWKSCDL EEVMVDALVS NKPEFVRLFV DNGADVADFL TYGRLQELYR
SVSRKSLLED LLQRKQEEAR LTLAGLGTQQ AREPPAGPPA FSLHEVSRVL KDFLQDACRG
FYQDGRPGDR RRAEKGPQR PTGQKWLDDL NQKSENPRD LFLWAVLQNR HEMATYFWAM
GQEGVAAALA ACKILKEMSH LETEAEAARA TREAKYERLA LDFSECYSN SEARAFALLV
RRNRCWSKTT CLHLATEADA KAFFAHDGVQ AFLTRIWWGD MAAGTPILRL LGAFPCPALV
YTNLITFSEE APLRTGLEDL QDLDSLDEK SPLYGLQSRV EELVEAPRAQ GDRGPRAVFL

LTRWRKFWGA PVTVFLGNV MYFAFLFLT YLLVDFRPP PQGPSGPEVT LYFWFTLVL
EIRQGFSTD EDTHLVKFT LYVGDNWNKC DMVAIFLIV GVTCRMLPSA FEAGRTLAM
DFMVFTLRLI HIFAIHKQLG PKIIVVERMM KDVFFLFFL SVWLVAYGVT TQALLHPHDG
RLEWIFRRVL YRPLYQIFGQ IPLDEIDAR VNCSTHPLLL EDSPPSCPSLY ANWLVILLV
TFLLVTNLL MLLIAMFSY TFQVQGNAD MFWKFQRYNL IVEYHERPAL APPFILLSHL
SLTLRRVFKK EAEHKREHLE RDLDPDLDQK VVTWETVQKE NFLSKMEKRR RDSEGEVLRK
TAHRVDFIAK YLGGLEQEK RIKCLESQIN YCSVLVSSVA DVLAQGGGPR SSQHCGEQS
LVAADHRGGL DGWEQPGAGQ PPSDT

Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Product Details

Concentration:

- 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.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Endotoxin Level:

Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade:

Crystallography grade

Target Details

Target:

TRPM5

Alternative Name:

TRPM5 ([TRPM5 Products](#))

Background:

Transient receptor potential cation channel subfamily M member 5 (Long transient receptor potential channel 5) (LTrpC-5) (LTrpC5) (MLSN1- and TRP-related gene 1 protein),FUNCTION: Voltage-modulated Ca(2+)-activated, monovalent cation channel (VCAM) that mediates a transient membrane depolarization and plays a central role in taste transduction. Monovalent-specific, non-selective cation channel that mediates the transport of Na(+), K(+) and Cs(+) ions equally well. Activated directly by increases in intracellular Ca(2+), but is impermeable to it. Gating is voltage-dependent and displays rapid activation and deactivation kinetics upon channel stimulation even during sustained elevations in Ca(2+). Also activated by a fast intracellular Ca(2+) increase in response to inositol 1,4,5-triphosphate-producing receptor agonists. The channel is blocked by extracellular acidification. External acidification has 2 effects, a fast reversible block of the current and a slower irreversible enhancement of current inactivation. Is a highly temperature-sensitive, heat activated channel showing a steep increase of inward currents at temperatures between 15 and 35 degrees Celsius. Heat activation is due to a shift of the voltage-dependent activation curve to negative potentials. Activated by

Target Details

arachidonic acid in vitro. May be involved in perception of bitter, sweet and umami tastes. May also be involved in sensing semiochemicals. {ECO:0000269|PubMed:14634208}.

Molecular Weight: 131.5 kDa

UniProt: [Q9NZQ8](#)

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.

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During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)



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