Datasheet for ABIN3136214

TRPA1 Protein (AA 1-1125) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	TRPA1
Protein Characteristics:	AA 1-1125
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TRPA1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MKRGLRRILL PEERKEVQGV VYRGVGEDMD CSKESFKVDI EGDMCRLEDF IKNRRKLSKY EDENLCPLHH AAAEGQVELM ELIINGSSCE VLNIMDGYGN TPLHCAAEKN QVESVKFLLS QGANPNLRNR NMMSPLHIAV HGMYNEVIKV LTEHKATNIN LEGENGNTAL MSTCAKDNSE ALQILLEKGA KLCKSNKWGD YPVHQAAFSG AKKCMELILA YGEKNGYSRE THINFVNHKK ASPLHLAVQS GDLDMIKMCL DNGAHIDMME NAKCMALHFA ATQGATDIVK LMISSYTGSS DIVNAVDGNQ ETLLHRASLF DHHDLAEYLI SVGADINSTD SEGRSPLILA TASASWNIVN LLLCKGAKVD IKDHLGRNFL HLTVQQPYGL RNLRPEFMQM QHIKELVMDE DNDGCTPLHY ACRQGVPVSV NNLLGFNVSI HSKSKDKKSP LHFAASYGRI NTCQRLLQDI SDTRLLNEGD LHGMTPLHLA AKNGHDKVVQ LLLKKGALFL SDHNGWTALH HASMGGYTQT MKVILDTNLK CTDRLDEEGN TALHFAAREG HAKAVAMLLS YNADILLNKK QASFLHIALH NKRKEVVLTT IRNKRWDECL QVFTHNSPSN RCPIMEMVEY LPECMKVLLD FCMIPSTEDK SCQDYHIEYN FKYLQCPLSM TKKVAPTQDV VYEPLTILNV MVQHNRIELL NHPVCREYLL MKWCAYGFRA

HMMNLGSYCL GLIPMTLLVV KIQPGMAFNS TGIINGTSST HEERIDTLNS FPIKICMILV FLSSIFGYCK EVIQIFQQKR NYFLDYNNAL EWVIYTTSII FVLPLFLNIP AYMQWQCGAI AIFFYWMNFL LYLQRFENCG IFIVMLEVIF KTLLRSTGVF IFLLLAFGLS FYVLLNFQDA FSTPLLSLIQ TFSMMLGDIN YRDAFLEPLF RNELAYPVLT FGQLIAFTMF VPIVLMNLLI GLAVGDIAEV QKHASLKRIA MQVELHTNLE KKLPLWYLRK VDQRSTIVYP NRPRHGRMLR FFHYFLNMQE TRQEVPNIDT CLEMEILKQK YRLKDLTSLL EKQHELIKLI IQKMEIISET EDEDNHCSFQ DRFKKERLEQ MHSKWNFVLN AVKTKTHCSI SHPDF

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!

Concentration:

Product Details

- 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)

Target Details

Target:	TRPA1
Alternative Name:	Trpa1 (TRPA1 Products)
Background:	Transient receptor potential cation channel subfamily A member 1 (Ankyrin-like with transmembrane domains protein 1) (Wasabi receptor),FUNCTION: Receptor-activated non-selective cation channel involved in pain detection and possibly also in cold perception, oxygen concentration perception, cough, itch, and inner ear function (PubMed:24140646). Shows 8-fold preference for divalent over monovalent cations. Has a central role in the pain response to endogenous inflammatory mediators and to a diverse array of irritants, such as allylthiocyanate (AITC) found in mustard oil or wasabi, cinnamaldehyde, diallyl disulfide (DADS) from garlic, and acrolein, an irritant from tears gas and vehicle exhaust fumes (PubMed:16564016). Acts also as an ionotropic cannabinoid receptor by being activated by delta(9)-tetrahydrocannabinol (THC), the psychoactive component of marijuana. Is activated by a large variety of structurally unrelated electrophilic and non-electrophilic chemical compounds. Electrophilic ligands activate TRPA1 by interacting with critical N-terminal Cys residues in a covalent manner, whereas mechanisms of non-electrophilic ligands are not well determined. May be a component for the mechanosensitive transduction channel of hair cells in inner ear, thereby participating in the perception of sounds. Probably operated by a phosphatidylinositol second messenger system. {ECO:0000250|UniProtKB:O75762, ECO:0000269|PubMed:12654248,

Target Details

	ECO:0000269|PubMed:15046718, ECO:0000269|PubMed:15483558, ECO:0000269|PubMed:15843607, ECO:0000269|PubMed:16564016, ECO:0000305|PubMed:24140646}.
Molecular Weight:	128.5 kDa
UniProt:	Q8BLA8

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:	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!
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)