

# Datasheet for ABIN7564386 **TRPA1 Protein (AA 1-1125) (His tag)**



## Overview

| Quantity:                     | 1 mg   |
|-------------------------------|--|
| Target:                       | TRPA1  |
| Protein Characteristics:      | AA 1-1125                                    |
| Origin:                       | Mouse  |
| Source:                       | HEK-293 Cells                                |
| Protein Type:                 | Recombinant                                  |
| Purification tag / Conjugate: | This TRPA1 protein is labelled with His tag. |
| Application:                  | Western Blotting (WB), SDS-PAGE (SDS)        |

| Product Details |  |
|-----------------|--|
| Purpose:        | Custom-made recombinat Trpa1 Protein expressed in mammalien cells. |
| 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 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 mammalien 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:           | 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:075762, ECO:0000269|PubMed:12654248, 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:

08BLA8

### **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.  |

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Expiry Date:

12 months