Datasheet for ABIN7565024

TRPV4 Protein (AA 1-871) (His tag)

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Overview

Quantity:	1 mg
Target:	TRPV4
Protein Characteristics:	AA 1-871
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TRPV4 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Trpv4 Protein expressed in mammalian cells.
Sequence:	MADPGDGPRA APGEVAEPPG DESGTSGGEA FPLSSLANLF EGEEGSSSLS PVDASRPAGP GDGRPNLRMK FQGAFRKGVP NPIDLLESTL YESSVVPGPK KAPMDSLFDY GTYRHHPSDN KRWRRKVVEK QPQSPKAPAP QPPPILKVFN RPILFDIVSR GSTADLDGLL SFLLTHKKRL TDEEFREPST GKTCLPKALL NLSNGRNDTI PVLLDIAERT GNMREFINSP FRDIYYRGQT SLHIAIERRC KHYVELLVAQ GADVHAQARG RFFQPKDEGG YFYFGELPLS LAACTNQPHI VNYLTENPHK KADMRRQDSR GNTVLHALVA IADNTRENTK FVTKMYDLLL LKCSRLFPDS NLETVLNNDG LSPLMMAAKT GKIGVFQHII RREVTDEDTR HLSRKFKDWA YGPVYSSLYD LSSLDTCGEE VSVLEILVYN SKIENRHEML AVEPINELLR DKWRKFGAVS FYINVVSYLC AMVIFTLTAY YQPLEGTPPY PYRTTVDYLR LAGEVITLFT GVLFFFTSIK DLFTKKCPGV NSLFVDGSFQ LLYFIYSVLV VVSAALYLAG IEAYLAVMVF ALVLGWMNAL YFTRGLKLTG TYSIMIQKIL FKDLFRFLLV YLLFMIGYAS ALVTLLNPCT NMKVCDEDQS NCTVPTYPAC RDSETFSAFL LDLFKLTIGM GDLEMLSSAK YPVVFILLLV TYIILTFVLL LNMLIALMGE

Product Details

	TVGQVSKESK HIWKLQWATT ILDIERSFPV FLRKAFRSGE MVTVGKSSDG TPDRRWCFRV DEVNWSHWNQ NLGIINEDPG KSEIYQYYGF SHTVGRLRRD RWSSVVPRVV ELNKNSSADE VVVPLDNLGN PNCDGHQQGY APKWRTDDAP L **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian 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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	TRPV4
Alternative Name:	Trpv4 (TRPV4 Products)
Background:	Transient receptor potential cation channel subfamily V member 4 (TrpV4) (Osm-9-like TRP channel 4) (OTRPC4) (Transient receptor potential protein 12) (TRP12) (Vanilloid receptor-like channel 2) (Vanilloid receptor-like protein 2) (Vanilloid receptor-related osmotically-activated channel) (VR-OAC),FUNCTION: Non-selective calcium permeant cation channel involved in osmotic sensitivity and mechanosensitivity (PubMed:11094154, PubMed:12093812,

Target Details

	PubMed:12538589). Activation by exposure to hypotonicity within the physiological range exhibits an outward rectification (PubMed:12093812, PubMed:14691263, PubMed:16368742, PubMed:16571723). Also activated by heat, low pH , citrate and phorbol esters (PubMed:14691263). Increase of intracellular Ca(2+) potentiates currents. Channel activity seems to be regulated by a calmodulin-dependent mechanism with a negative feedback mechanism (By similarity). Acts as a regulator of intracellular Ca(2+) in synoviocytes (By similarity). Plays an obligatory role as a molecular component in the nonselective cation channel activation induced by 4-alpha-phorbol 12,13-didecanoate and hypotonic stimulation in synoviocytes and also regulates production of IL-8 (By similarity). Together with PKD2, forms mechano- and thermosensitive channels in cilium (PubMed:18695040). Promotes cell-cell junction formation in skin keratinocytes and plays an important role in the formation and/or maintenance of functional intercellular barriers (PubMed:20413591). Negatively regulates expression of PPARGC1A, UCP1, oxidative metabolism and respiration in adipocytes (PubMed:23021218). Regulates expression of chemokines and cytokines related to pro-inflammatory pathway in adipocytes (PubMed:23021218). Together with AQP5, controls regulatory volume decrease in salivary epithelial cells (PubMed:16571723). Required for normal development and maintenance of bone and cartilage (By similarity). In its inactive state, may sequester DDX3X at the plasma membrane. When activated, the interaction between both proteins is affected and DDX3X relocalizes to the nucleus (By similarity). In neurons of the central nervous system, could play a role in triggering voluntary water intake in response to increased sodium concentration in body fluid (PubMed:27252474). {ECO:0000250|UniProtKB:Q9HBA0, ECO:0000269|PubMed:11094154, ECO:0000269|PubMed:12093812, ECO:0000269|PubMed:12538589, ECO:0000269|PubMed:14691263, ECO:0000269|PubMed:16368742, ECO:0000269|PubMed:16571723, ECO:0000269|PubMed:18174177, ECO:0000269|PubMed:18695040, ECO:0000269|PubMed:20413591, ECO:0000269|PubMed:23021218, ECO:0000269|PubMed:27252474}.
Molecular Weight:	98.0 kDa
UniProt:	Q9EPK8
Pathways:	Hormone Transport, Cell-Cell Junction Organization

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Application Details

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.
Expiry Date:	12 months

