antibodies

Datasheet for ABIN3096055 TRPM8 Protein (AA 980-1104) (His tag)





Overview

Quantity:	1 mg
Target:	TRPM8
Protein Characteristics:	AA 980-1104
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TRPM8 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys), ELISA
Product Details	
Sequence:	GYTVGTVQEN NDQVWKFQRY FLVQEYCSRL NIPFPFIVFA YFYMVVKKCF KCCCKEKNME
	SSVCCFKNED NETLAWEGVM KENYLVKINT KANDTSEEMR HRFRQLDTKL NDLKGLLKEI ANKIK
	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 TRPM8 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

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Product Details	
	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 receival 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:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells:
	1. In a first purification step, the protein is purified from the cleared cell lysate using three
	different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:	>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:	TRPM8
Alternative Name:	TRPM8 (TRPM8 Products)
Background:	Receptor-activated non-selective cation channel involved in detection of sensations such as
	coolness, by being activated by cold temperature below 25 degrees Celsius. Activated by icilin,
	eucalyptol, menthol, cold and modulation of intracellular pH . Involved in menthol sensation.
	Permeable for monovalent cations sodium, potassium, and cesium and divalent cation calcium.
	Temperature sensing is tightly linked to voltage-dependent gating. Activated upon

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	depolarization, changes in temperature resulting in graded shifts of its voltage-dependent
	activation curves. The chemical agonist menthol functions as a gating modifier, shifting
	activation curves towards physiological membrane potentials. Temperature sensitivity arises
	from a tenfold difference in the activation energies associated with voltage-dependent opening
	and closing. In prostate cancer cells, shows strong inward rectification and high calcium
	selectivity in contrast to its behavior in normal cells which is characterized by outward
	rectification and poor cationic selectivity. Plays a role in prostate cancer cell migration
	(PubMed:25559186). Isoform 2 and isoform 3 negatively regulate menthol- and cold-induced
	channel activity by stabilizing the closed state of the channel.
	{EC0:0000269 PubMed:15306801, EC0:0000269 PubMed:16174775,
	ECO:0000269 PubMed:22128173, ECO:0000269 PubMed:25559186}.
Molecular Weight:	15.9 kDa Including tag.
UniProt:	Q7Z2W7
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 gurantee 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)

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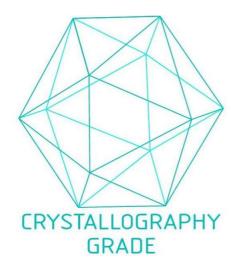


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process

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