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Datasheet for ABIN3089318 ASIC1 Protein (AA 70-427) (His tag)

Image



Overview

Quantity:	1 mg
Target:	ASIC1 (ACCN2)
Protein Characteristics:	AA 70-427
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ASIC1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	HYHHVTKLDE VAASQLTFPA VTLCNLNEFR FSQVSKNDLY HAGELLALLN NRYEIPDTQM
	ADEKQLEILQ DKANFRSFKP KPFNMREFYD RAGHDIRDML LSCHFRGEVC SAEDFKVVFT
	RYGKCYTFNS GRDGRPRLKT MKGGTGNGLE IMLDIQQDEY LPVWGETDET SFEAGIKVQI
	HSQDEPPFID QLGFGVAPGF QTFVACQEQR LIYLPPPWGT CKAVTMDSDL DFFDSYSITA
	CRIDCETRYL VENCNCRMVH MPGDAPYCTP EQYKECADPA LDFLVEKDQE YCVCEMPCNL
	TRYGKELSMV KIPSKASAKY LAKKFNKSEQ YIGENILVLD IFFEVLNYET IEQKKAYE
	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 ASIC1 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).

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Product Details	
	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.
	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.
	 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:	ASIC1 (ACCN2)
Alternative Name:	ASIC1 (ACCN2 Products)
Background:	Isoform 2 and isoform 3 function as proton-gated sodium channels, they are activated by a

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	drop of the ovtropollular pH and then become repidly dependitized. The shannel constraints
	drop of the extracellular pH and then become rapidly desensitized. The channel generates a
	biphasic current with a fast inactivating and a slow sustained phase. Has high selectivity for
	sodium ions and can also transport lithium ions with high efficiency. Isoform 2 can also
	transport potassium, but with lower efficiency. It is nearly impermeable to the larger rubidium
	and cesium ions. Isoform 3 can also transport calcium ions. Mediates glutamate-independent
	Ca(2+) entry into neurons upon acidosis. This Ca(2+) overloading is toxic for cortical neurons
	and may be in part responsible for ischemic brain injury. Heteromeric channel assembly seems
	to modulate channel properties. Functions as a postsynaptic proton receptor that influences
	intracellular Ca(2+) concentration and calmodulin-dependent protein kinase II phosphorylation
	and thereby the density of dendritic spines. Modulates activity in the circuits underlying innate
	fear. {ECO:0000269 PubMed:22760635}., Isoform 1 does not display proton-gated cation
	channel activity. {ECO:0000269 PubMed:22760635}.
Molecular Weight:	42.2 kDa Including tag.
UniProt:	P78348
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:	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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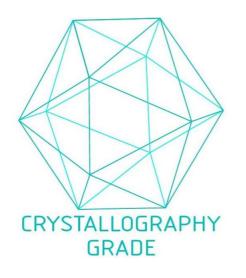


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process

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