Datasheet for ABIN7564280

LRRC8A Protein (AA 1-810) (His tag)

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Overview

Quantity:	1 mg
Target:	LRRC8A
Protein Characteristics:	AA 1-810
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This LRRC8A protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Lrrc8a Protein expressed in mammalian cells.
Sequence:	MIPVTELRYF ADTQPAYRIL KPWWDVFTDY ISIVMLMIAV FGGTLQVTQD KMICLPCKWV TKDSCNDSFR GWAASSPEPT YPNSTVLPTP DTGPTGIKYD LDRHQYNYVD AVCYENRLHW FAKYFPYLVL LHTLIFLACS NFWFKFPRTS SKLEHFVSIL LKCFDSPWTT RALSETVVEE SDPKPAFSKM NGSMDKKSST VSEDVEATVP MLQRTKSRIE QGIVDRSETG VLDKKEGEQA KALFEKVKKF RTHVEEGDIV YRLYMRQTII KVIKFALIIC YTVYYVHNIK FDVDCTVDIE SLTGYRTYRC AHPLATLFKI LASFYISLVI FYGLICMYTL WWMLRRSLKK YSFESIREES SYSDIPDVKN DFAFMLHLID QYDPLYSKRF AVFLSEVSEN KLRQLNLNNE WTLDKLRQRL TKNAQDKLEL HLFMLSGIPD TVFDLVELEV LKLELIPDVT IPPSIAQLTG LKELWLYHTA AKIEAPALAF LRENLRALHI KFTDIKEIPL WIYSLKTLEE LHLTGNLSAE NNRYIVIDGL RELKRLKVLR LKSNLSKLPQ VVTDVGVHLQ KLSINNEGTK LIVLNSLKKM VNLTELELIR CDLERIPHSI FSLHNLQEID LKDNNLKTIE EIISFQHLHR LTCLKLWYNH IAYIPIQIGN LTNLERLYLN RNKIEKIPTQ LFYCRKLRYL DLSHNNLTFL PADIGLLQNL QNLAVTANRI EALPPELFQC RKLRALHLGN

Product Details

	NVLQSLPSRV GELTNLTQIE LRGNRLECLP VELGECPLLK RSGLVVEEDL FSTLPPEVKE RLWRADKEQA **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:	LRRC8A
Alternative Name:	Lrrc8a (LRRC8A Products)
Background:	Volume-regulated anion channel subunit LRRC8A (Leucine-rich repeat-containing protein 8A) (Protein ebouriffe) (ebo),FUNCTION: Essential component of the volume-regulated anion channel (VRAC, also named VSOAC channel), an anion channel required to maintain a constant cell volume in response to extracellular or intracellular osmotic changes (PubMed:30135305, PubMed:29769723). The VRAC channel conducts iodide better than chloride and can also conduct organic osmolytes like taurine (By similarity). Mediates efflux of amino acids, such as aspartate and glutamate, in response to osmotic stress (By similarity). In complex with LRRC8C

Target Details

	or LRRC8E, acts as a transporter of immunoreactive cyclic dinucleotide GMP-AMP (2'-3'-cGAMP), an immune messenger produced in response to DNA virus in the cytosol: mediates both import and export of 2'-3'-cGAMP, thereby promoting transfer of 2'-3'-cGAMP to bystander cells (PubMed:32277911). In contrast, complexes containing LRRC8D inhibit transport of 2'-3'-cGAMP (By similarity). Required for in vivo channel activity, together with at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E), channel characteristics depend on the precise subunit composition (By similarity). Can form functional channels by itself (in vitro) (By similarity). Involved in B-cell development: required for the pro-B cell to pre-B cell transition (PubMed:14660746, PubMed:24752297). Also required for T-cell development (PubMed:24752297). Required for myoblast differentiation: VRAC activity promotes membrane hyperpolarization and regulates insulin-stimulated glucose metabolism and oxygen consumption (PubMed:31387946, PubMed:32930093). Also acts as a regulator of glucose-sensing in pancreatic beta cells: VRAC currents, generated in response to hypotonicity- or glucose-induced beta cell swelling, depolarize cells, thereby causing electrical excitation, leading to increase glucose sensitivity and insulin secretion (PubMed:29371604, PubMed:29773801). Also plays a role in lysosome homeostasis by forming functional lysosomal VRAC channels in response to low cytoplasmic ionic strength condition: lysosomal VRAC channels are necessary for the formation of large lysosome-derived vacuoles, which store and then expel excess water to maintain cytosolic water homeostasis (By similarity). {ECO:0000250|UniProtKB:Q8IWT6, ECO:0000269|PubMed:14660746, ECO:0000269|PubMed:24752297, ECO:0000269|PubMed:29371604, ECO:0000269|PubMed:29769723, ECO:0000269|PubMed:29773801, ECO:0000269|PubMed:30135305, ECO:0000269|PubMed:31387946, ECO:0000269|PubMed:32277911, ECO:0000269|PubMed:32930093}.
Molecular Weight:	94.1 kDa
UniProt:	Q80WG5

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.
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

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