Datasheet for ABIN7553324

C9ORF72 Protein (AA 1-481) (His tag)

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Overview

Quantity:	1 mg
Target:	C9ORF72
Protein Characteristics:	AA 1-481
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This C9ORF72 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant C9orf72 Protein expressed in mammalian cells.
Sequence:	MSTLCPPPSP AVAKTEIALS GKSPLLAATF AYWDNILGPR VRHIWAPKTE QVLLSDGEIT FLANHTLNGE ILRNAESGAI DVKFFVLSEK GVIIVSLIFD GNWNGDRSTY GLSIILPQTE LSFYLPLHRV CVDRLTHIIR KGRIWMHKER QENVQKIILE GTERMEDQGQ SIIPMLTGEV IPVMELLSSM KSHSVPEEID IADTVLNDDD IGDSCHEGFL LNAISSHLQT CGCSVVVGSS AEKVNKIVRT LCLFLTPAER KCSRLCEAES SFKYESGLFV QGLLKDSTGS FVLPFRQVMY APYPTTHIDV DVNTVKQMPP CHEHIYNQRR YMRSELTAFW RATSEEDMAQ DTIIYTDESF TPDLNIFQDV LHRDTLVKAF LDQVFQLKPG LSLRSTFLAQ FLLVLHRKAL TLIKYIEDDT QKGKKPFKSL RNLKIDLDLT AEGDLNIIMA LAEKIKPGLH SFIFGRPFYT SVQERDVLMT F **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

Product Details

	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:	C9ORF72
Alternative Name:	C9orf72 (C9ORF72 Products)
Background:	Guanine nucleotide exchange factor C9orf72,FUNCTION: Component of the C9orf72-SMCR8 complex, a complex that has guanine nucleotide exchange factor (GEF) activity and regulates autophagy (PubMed:27193190, PubMed:27103069, PubMed:27617292, PubMed:28195531, PubMed:32303654). In the complex, C9orf72 and SMCR8 probably constitute the catalytic subunits that promote the exchange of GDP to GTP, converting inactive GDP-bound RAB8A and RAB39B into their active GTP-bound form, thereby promoting autophagosome maturation (PubMed:27103069). The C9orf72-SMCR8 complex also acts as a regulator of autophagy initiation by interacting with the ULK1/ATG1 kinase complex and modulating its protein kinase activity (PubMed:27617292). As part of the C9orf72-SMCR8 complex, stimulates RAB8A and RAB11A GTPase activity in vitro (PubMed:32303654). Positively regulates initiation of autophagy by regulating the RAB1A-dependent trafficking of the ULK1/ATG1 kinase complex to the phagophore which leads to autophagosome formation (PubMed:27334615). Acts as a

Target Details

	regulator of mTORC1 signaling by promoting phosphorylation of mTORC1 substrates (PubMed:27559131). Plays a role in endosomal trafficking (PubMed:24549040). May be involved in regulating the maturation of phagosomes to lysosomes (By similarity). Promotes the lysosomal localization and lysosome-mediated degradation of CARM1 which leads to inhibition of starvation-induced lipid metabolism (By similarity). Regulates actin dynamics in motor neurons by inhibiting the GTP-binding activity of ARF6, leading to ARF6 inactivation (PubMed:27723745). This reduces the activity of the LIMK1 and LIMK2 kinases which are responsible for phosphorylation and inactivation of cofilin, leading to CFL1/cofilin activation (PubMed:27723745). Positively regulates axon extension and axon growth cone size in spinal motor neurons (PubMed:27723745). Required for SMCR8 protein expression and localization at pre- and post-synaptic compartments in the forebrain, also regulates protein abundance of RAB3A and GRIA1/GLUR1 in post-synaptic compartments in the forebrain and hippocampus (By similarity). Plays a role within the hematopoietic system in restricting inflammation and the development of autoimmunity (By similarity). {ECO:0000250|UniProtKB:Q6DFW0, ECO:0000269|PubMed:24549040, ECO:0000269|PubMed:27103069, ECO:0000269|PubMed:27193190, ECO:0000269|PubMed:27334615, ECO:0000269|PubMed:27559131, ECO:0000269|PubMed:27617292, ECO:0000269|PubMed:27723745, ECO:0000269|PubMed:28195531, ECO:0000269|PubMed:32303654}., FUNCTION: [Isoform 1]: Regulates stress granule assembly in response to cellular stress. {ECO:0000269|PubMed:27037575}., FUNCTION: [Isoform 2]: Does not play a role in regulation of stress granule assembly in response to cellular stress. {ECO:0000269|PubMed:27037575}.
Molecular Weight:	54.3 kDa
UniProt:	Q96LT7

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
Buffer:	The buffer composition is at the discretion of the manufacturer.

Handling

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

