Datasheet for ABIN7552264

Arc Protein (AA 1-396) (His tag)

3 Images

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Overview

Quantity:	1 mg
Target:	Arc
Protein Characteristics:	AA 1-396
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Arc protein is labelled with His tag.

Product Details

Purpose:	Made-to-order recombinant ARC Protein expressed in mammalian cells.
Sequence:	MELDHRTSGG LHAYPGPRGG QVAKPNVILQ IGKCRAEMLE HVRRTHRHLL AEVSKQVERE LKGLHRSVGK LESNLDGYVP TSDSQRWKKS IKACLCRCQE TIANLERWVK REMHVWREVF YRLERWADRL ESTGGKYPVG SESARHTVSV GVGGPESYCH EADGYDYTVS PYAITPPPAA GELPGQEPAE AQQYQPWVPG EDGQPSPGVD TQIFEDPREF LSHLEEYLRQ VGGSEEYWLS QIQNHMNGPA KKWWEFKQGS VKNWVEFKKE FLQYSEGTLS REAIQRELDL PQKQGEPLDQ FLWRKRDLYQ TLYVDADEEE IIQYVVGTLQ PKLKRFLRHP LPKTLEQLIQ RGMEVQDDLE QAAEPAGPHL PVEDEAETLT PAPNSESVAS DRTQPE **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.

Product Details

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:	Arc
Alternative Name:	ARC (Arc Products)
Background:	Activity-regulated cytoskeleton-associated protein (hArc) (Activity-regulated gene 3.1 protein homolog) (ARC/ARG3.1) (Arg3.1),FUNCTION: Master regulator of synaptic plasticity that self-assembles into virion-like capsids that encapsulate RNAs and mediate intercellular RNA transfer in the nervous system. ARC protein is released from neurons in extracellular vesicles that mediate the transfer of ARC mRNA into new target cells, where ARC mRNA can undergo activity-dependent translation. ARC capsids are endocytosed and are able to transfer ARC mRNA into the cytoplasm of neurons. Acts as a key regulator of synaptic plasticity: required for protein synthesis-dependent forms of long-term potentiation (LTP) and depression (LTD) and for the formation of long-term memory. Regulates synaptic plasticity by promoting endocytosis of AMPA receptors (AMPARs) in response to synaptic activity: this endocytic pathway maintains levels of surface AMPARs in response to chronic changes in neuronal activity through synaptic scaling, thereby contributing to neuronal homeostasis. Acts as a postsynaptic mediator of activity-dependent synapse elimination in the developing cerebellum by mediating

Target Details

	elimination of surplus climbing fiber synapses. Accumulates at weaker synapses, probably to prevent their undesired enhancement. This suggests that ARC-containing virion-like capsids may be required to eliminate synaptic material. Required to transduce experience into long-lasting changes in visual cortex plasticity and for long-term memory (By similarity). Involved in postsynaptic trafficking and processing of amyloid-beta A4 (APP) via interaction with PSEN1 (By similarity). In addition to its role in synapses, also involved in the regulation of the immune system: specifically expressed in skin-migratory dendritic cells and regulates fast dendritic cell migration, thereby regulating T-cell activation (By similarity). {ECO:0000250|UniProtKB:Q63053, ECO:0000250|UniProtKB:Q9WV31}.
Molecular Weight:	45.3 kDa
UniProt:	Q7LC44

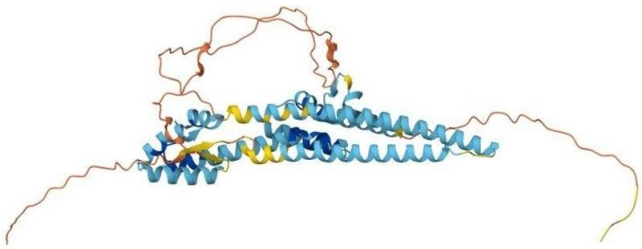
Application Details

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

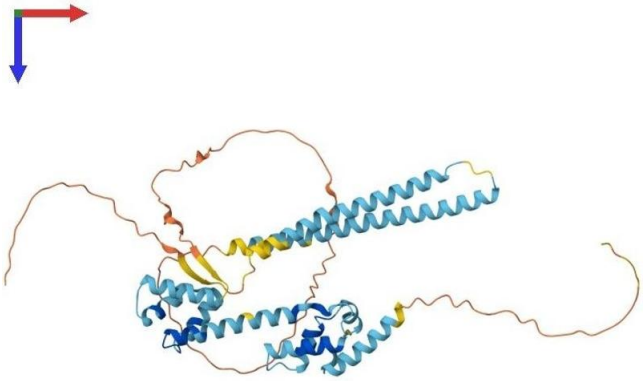
Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

Images



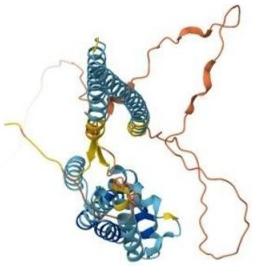
Protein Structure

Image 1. AlphaFold protein structure predicition of Human Recombinant ARC Protein, UniprotID Q7LC44



Protein Structure

Image 2. AlphaFold protein structure predicition of Human Recombinant ARC Protein, UniprotID Q7LC44



Protein Structure

Image 3. AlphaFold protein structure predicition of Human Recombinant ARC Protein, UniprotID Q7LC44