Datasheet for ABIN7547705

CACFD1 Protein (AA 1-172) (His tag)

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Overview

Quantity:	1 mg
Target:	CACFD1
Protein Characteristics:	AA 1-172
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CACFD1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant CACFD1 Protein expressed in mammalian cells.
Sequence:	MSSSGGAPGA SASSAPPAQE EGMTWWYRWL CRLSGVLGAV SCAISGLFNC ITIHPLNIAA GVWMIMNAFI LLLCEAPFCC QFIEFANTVA EKVDRLRSWQ KAVFYCGMAV VPIVISLTLT TLLGNAIAFA TGVLYGLSAL GKKGDAISYA RIQQQRQQAD EEKLAETLEG EL **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

Product Details

	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:	CACFD1
Alternative Name:	CACFD1 (CACFD1 Products)
Background:	Calcium channel flower homolog (Calcium channel flower domain-containing protein 1),FUNCTION: Transmembrane protein which mediates synaptic endocytosis and fitness-based cell culling (PubMed:31341286, PubMed:37348560). In response to different stimulus strengths, controls two major modes of synaptic vesicle (SV) retrieval in hippocampal neurons, Clathrin-mediated endocytosis (CME) in response to mild stimulation and activity-dependent bulk endocytosis (ADBE) in response to strong stimulation (By similarity). In cytotoxic T-lymphoocytes (CTLs) facilitates calcium-dependent endocytosis of cytotoxic granules at the immuno synapse (By similarity). Different isoforms work as fitness fingerprints in 'loser' and 'winner' cells and thereby mediate win/lose decisions as part of the cell competition process (PubMed:31341286). {ECO:0000250|UniProtKB:D4A9I3, ECO:0000250|UniProtKB:Q8BG21, ECO:0000269|PubMed:31341286, ECO:0000269|PubMed:37348560}., FUNCTION: [Isoform 1]: Functions with the other flower isoforms to produce tissue-specific fitness fingerprints that identify unfit or fit cells during cell selection processes in order to maintain tissue health (PubMed:31341286). During cell competition, if levels of this isoform in cells is higher than in the surrounding neighboring cells, the cells are recognized as 'winner' cells, and do not undergo elimination via apoptosis (PubMed:31341286). {ECO:0000269|PubMed:31341286}., FUNCTION: [Isoform 2]: Functions with the other flower isoforms to produce tissue-specific fitness

Target Details

	fingerprints that identify unfit or fit cells during cell selection processes in order to maintain tissue health (PubMed:31341286). During cell competition, if levels of this isoform in unfit cells is higher than in the surrounding neighboring cells, the cells are recognized as 'loser' cells, and undergo elimination via apoptosis to be replaced by the surrounding healthy 'winner' cell population (PubMed:31341286). {ECO:0000269|PubMed:31341286}., FUNCTION: [Isoform 3]: Functions with the other flower isoforms to produce tissue-specific fitness fingerprints that identify unfit or fit cells during cell selection processes in order to maintain tissue health (PubMed:31341286). During cell competition, if levels of this isoform in unfit cells is higher than in the surrounding neighboring cells, the cells are recognized as 'loser' cells, and undergo elimination via apoptosis to be replaced by the surrounding healthy 'winner' cell population (PubMed:31341286). {ECO:0000269|PubMed:31341286}., FUNCTION: [Isoform 4]: Functions with the other flower isoforms to produce tissue-specific fitness fingerprints that identify unfit or fit cells during cell selection processes in order to maintain tissue health (PubMed:31341286). During cell competition, if levels of this isoform in cells is higher than in the surrounding neighboring cells, the cells are recognized as 'winner' cells, and do not undergo elimination via apoptosis (PubMed:31341286). {ECO:0000269|PubMed:31341286}.
Molecular Weight:	18.5 kDa
UniProt:	Q9UGQ2

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