Datasheet for ABIN7554186

INSIG1 Protein (AA 1-277) (His tag)

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Overview

Quantity:	1 mg
Target:	INSIG1
Protein Characteristics:	AA 1-277
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This INSIG1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant INSIG1 Protein expressed in mammalian cells.
Sequence:	MPRLHDHFWS CSCAHSARRR GPPRASAAGL AAKVGEMINV SVSGPSLLAA HGAPDADPAP RGRSAAMSGP EPGSPYPNTW HHRLLQRSLV LFSVGVVLAL VLNLLQIQRN VTLFPEEVIA TIFSSAWWVP PCCGTAAAVV GLLYPCIDSH LGEPHKFKRE WASVMRCIAV FVGINHASAK LDFANNVQLS LTLAALSLGL WWTFDRSRSG LGLGITIAFL ATLITQFLVY NGVYQYTSPD FLYIRSWLPC IFFSGGVTVG NIGRQLAMGV PEKPHSD **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:

Product Details

- 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:	INSIG1
Alternative Name:	INSIG1 (INSIG1 Products)
Background:	Insulin-induced gene 1 protein (INSIG-1),FUNCTION: Oxysterol-binding protein that mediates feedback control of cholesterol synthesis by controlling both endoplasmic reticulum to Golgi transport of SCAP and degradation of HMGCR (PubMed:12202038, PubMed:12535518, PubMed:16168377, PubMed:16399501, PubMed:16606821, PubMed:32322062). Acts as a negative regulator of cholesterol biosynthesis by mediating the retention of the SCAP-SREBP complex in the endoplasmic reticulum, thereby blocking the processing of sterol regulatory element-binding proteins (SREBPs) SREBF1/SREBP1 and SREBF2/SREBP2 (PubMed:12202038, PubMed:16399501, PubMed:32322062). Binds oxysterol, including 25-hydroxycholesterol, regulating interaction with SCAP and retention of the SCAP-SREBP complex in the endoplasmic reticulum (PubMed:32322062). In presence of oxysterol, interacts with SCAP, retaining the SCAP-SREBP complex in the endoplasmic reticulum, thereby preventing SCAP from escorting SREBF1/SREBP1 and SREBF2/SREBP2 to the Golgi (PubMed:15899885, PubMed:32322062). Sterol deprivation or phosphorylation by PCK1 reduce oxysterol-binding, disrupting the interaction between INSIG1 and SCAP, thereby promoting Golgi transport of the

Target Details

	SCAP-SREBP complex, followed by processing and nuclear translocation of SREBF1/SREBP1 and SREBF2/SREBP2 (PubMed:32322062). Also regulates cholesterol synthesis by regulating degradation of HMGCR: initiates the sterol-mediated ubiquitin-mediated endoplasmic reticulum-associated degradation (ERAD) of HMGCR via recruitment of the reductase to the ubiquitin ligases AMFR/gp78 and/or RNF139 (PubMed:12535518, PubMed:16168377, PubMed:22143767). Also regulates degradation of SOAT2/ACAT2 when the lipid levels are low: initiates the ubiquitin-mediated degradation of SOAT2/ACAT2 via recruitment of the ubiquitin ligases AMFR/gp78 (PubMed:28604676). {ECO:0000269|PubMed:12202038, ECO:0000269|PubMed:12535518, ECO:0000269|PubMed:15899885, ECO:0000269|PubMed:16168377, ECO:0000269|PubMed:16399501, ECO:0000269|PubMed:16606821, ECO:0000269|PubMed:22143767, ECO:0000269|PubMed:28604676, ECO:0000269|PubMed:32322062}.
Molecular Weight:	30.0 kDa
UniProt:	O15503
Pathways:	ER-Nucleus Signaling

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

