Datasheet for ABIN7560036

INSIG2 Protein (AA 1-225) (His tag)

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Overview

Quantity:	1 mg
Target:	INSIG2
Protein Characteristics:	AA 1-225
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This INSIG2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Insig2 Protein expressed in mammalien cells.
Sequence:	MAEGETESPR PKKCGPYISS VTSQSVNVVI RGVVLFFIGV FLALVLNLLQ IQRNVTLFPP DVITSIFSSA WWVPPCCGTA SAVIGLLYPC IDRHLGEPHK FKREWSSVMR CVAVFVGINH ASAKVDFDNN FQFSLTLAAL SVGLWWTFDR SRSGFGLGVG IAFLATVVTQ LLVYNGVYQY TSPDFLYVRS WLPCIFFAGG ITMGNIGRQL AMYECKVIAE KSHQE **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.**
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien 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, Western Blot
Grade:	custom-made

Target Details

Target:	INSIG2
Alternative Name:	Insig2 (INSIG2 Products)
Background:	Insulin-induced gene 2 protein (INSIG-2),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:12242332, PubMed:12624180, PubMed:16100574). 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:16100574). Binds oxysterol, including 22-hydroxycholesterol, 24-hydroxycholesterol, 25-hydroxycholesterol and 27-hydroxycholesterol, regulating interaction with SCAP and retention of the SCAP-SREBP complex in the endoplasmic reticulum (By similarity). 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 (By similarity). Sterol deprivation or phosphorylation by PCK1 reduce oxysterol-binding, disrupting the interaction between INSIG2 and SCAP, thereby promoting Golgi transport of the SCAP-SREBP complex, followed by processing and nuclear translocation of SREBF1/SREBP1 and SREBF2/SREBP2 (By similarity). Also regulates cholesterol synthesis by regulating degradation of HMGCR: initiates the sterol-mediated ubiquitin-mediated endoplasmic reticulum-associated degradation (ERAD) of HMGCR via

Target Details

	recruitment of the reductase to the ubiquitin ligase RNF139 (By similarity). {ECO:0000250|UniProtKB:Q9Y5U4, ECO:0000269|PubMed:12242332, ECO:0000269|PubMed:12624180, ECO:0000269|PubMed:16100574}.
Molecular Weight:	24.9 kDa
UniProt:	Q91WG1
Pathways:	ER-Nucleus Signaling

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. 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