Datasheet for ABIN7554443

GBL Protein (AA 1-326) (His tag)

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Overview

Quantity:	1 mg
Target:	GBL
Protein Characteristics:	AA 1-326
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GBL protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat MLST8 Protein expressed in mammalien cells.
Sequence:	MNTSPGTVGS DPVILATAGY DHTVRFWQAH SGICTRTVQH QDSQVNALEV TPDRSMIAAA GYQHIRMYDL NSNNPNPIIS YDGVNKNIAS VGFHEDGRWM YTGGEDCTAR IWDLRSRNLQ CQRIFQVNAP INCVCLHPNQ AELIVGDQSG AIHIWDLKTD HNEQLIPEPE VSITSAHIDP DASYMAAVNS TGNCYVWNLT GGIGDEVTQL IPKTKIPAHT RYALQCRFSP DSTLLATCSA DQTCKIWRTS NFSLMTELSI KSGNPGESSR GWMWGCAFSG DSQYIVTASS DNLARLWCVE TGEIKREYGG HQKAVVCLAF NDSVLG **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.

Product Details

	• Protein expressed in mammalien 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, Western Blot
Grade:	custom-made

Target Details

Target:	GBL
Alternative Name:	MLST8 (GBL Products)
Background:	Target of rapamycin complex subunit LST8 (TORC subunit LST8) (G protein beta subunit-like) (Gable) (Protein GbetaL) (Mammalian lethal with SEC13 protein 8) (mLST8),FUNCTION: Subunit of both mTORC1 and mTORC2, which regulates cell growth and survival in response to nutrient and hormonal signals (PubMed:12718876, PubMed:15268862, PubMed:15467718, PubMed:24403073). mTORC1 is activated in response to growth factors or amino acids (PubMed:12718876, PubMed:15268862, PubMed:15467718, PubMed:24403073). In response to nutrients, mTORC1 is recruited to the lysosome membrane and promotes protein, lipid and nucleotide synthesis by phosphorylating several substrates, such as ribosomal protein S6 kinase (RPS6KB1 and RPS6KB2) and EIF4EBP1 (4E-BP1) (PubMed:12718876, PubMed:15268862, PubMed:15467718, PubMed:24403073). In the same time, it inhibits catabolic pathways by phosphorylating the autophagy initiation components ULK1 and ATG13, as well as transcription factor TFEB, a master regulators of lysosomal biogenesis and autophagy (PubMed:24403073). The mTORC1 complex is inhibited in response to starvation and amino acid depletion (PubMed:24403073). Within mTORC1, LST8 interacts directly with MTOR and enhances its kinase activity (PubMed:12718876). In nutrient-poor conditions,

Target Details

	stabilizes the MTOR-RPTOR interaction and favors RPTOR-mediated inhibition of MTOR activity (PubMed:12718876). mTORC2 is also activated by growth factors, but seems to be nutrient-insensitive (PubMed:15467718). mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors (PubMed:15467718). mTORC2 promotes the serum-induced formation of stress-fibers or F-actin (PubMed:15467718). mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation (PubMed:15467718). mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422' (PubMed:15467718). mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657' (PubMed:15467718). {ECO:0000269|PubMed:12718876, ECO:0000269|PubMed:15268862, ECO:0000269|PubMed:15467718, ECO:0000269|PubMed:24403073}.
Molecular Weight:	35.9 kDa
UniProt:	Q9BVC4
Pathways:	PI3K-Akt Signaling, RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Regulation of Actin Filament Polymerization, Autophagy, CXCR4-mediated Signaling Events, BCR Signaling, Warburg Effect

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