Datasheet for ABIN3093160

IRS4 Protein (AA 1-1257) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	IRS4
Protein Characteristics:	AA 1-1257
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This IRS4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MASCSFTRDQ ATRRLRGAAA AAAAALAAVV TTPLLSSGTP TALIGTGSSC PGAMWLSTAT GSRSDSESEE EDLPVGEEVC KRGYLRKQKH GHRRYFVLKL ETADAPARLE YYENARKFRH SVRAAAAAAA AAASGAAIPP LIPPRRVITL YQCFSVSQRA DARYRHLIAL FTQDEYFAMV AENESEQESW YLLLSRLILE SKRRRCGTLG AQPDGEPAAL AAAAAAEPPF YKDVWQVIVK PRGLGHRKEL SGVFRLCLTD EEVVFVRLNT EVASVVVQLL SIRRCGHSEQ YFFLEVGRST VIGPGELWMQ VDDCVVAQNM HELFLEKMRA LCADEYRARC RSYSISIGAH LLTLLSARRH LGLVPLEPGG WLRRSRFEQF CHLRAIGDGE DEMLFTRRFV TPSEPVAHSR RGRLHLPRGR RSRRAVSVPA SFFRRLAPSP ARPRHPAEAP NNGARLSSEV SGSGSGNFGE EGNPQGKEDQ EGSGGDYMPM NNWGSGNGRG SGGGQGSNGQ GSSSHSSGGN QCSGEGQGSR GGQGSNGQGS GGNQCSRDGQ GTAGGHGSGG GQRPGGGHGS GGGQGPGDGH GSGGGKNSGG GKGSGSGKGS DGDGERGKSL KKRSYFGKLT QSKQQQMPPP PPPPPPPPPA GGTGGKGKSG GRFRLYFCVD RGATKECKEA KEVKDAEIPE GAARGPHRAR AFDEDEDDPY VPMRPGVATP LVSSSDYMPM

APQNVSASKK RHSRSPFEDS RGYMMMFPRV SPPPAPSPPK APDTNKEDDS KDNDSESDYM FMAPGAGAIP KNPRNPQGGS SSKSWSSYFS LPNPFRSSPL GQNDNSEYVP MLPGKFLGRG LDKEVSYNWD PKDAASKPSG EGSFSKPGDG GSPSKPSDHE PPKNKAKRPN RLSFITKGYK IKPKPQKPTH EQREADSSSD YVNMDFTKRE SNTPAPSTQG LPDSWGIIAE PRQSAFSNYV NVEFGVPFPN PANDLSDLLR AIPRANPLSL DSARWPLPPL PLSATGSNAI EEEGDYIEVI FNSAMTPAMA LADSAIRYDA ETGRIYVVDP FSECCMDISL SPSRCSEPPP VARLLQEEEQ ERRRPQSRSQ SFFAAARAAV SAFPTDSLER DLSPSSAPAV ASAAEPTLAL SQVVAAASAL AAAPGIGAAA AAAGFDSASA RWFQPVANAA DAEAVRGAQD VAGGSNPGAH NPSANLARGD NQAGGAAAAA AAPEPPPRSR RVPRPPERED SDNDDDTHVR MDFARRDNQF DSPKRGR

Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 will ensure that you receive a correctly folded protein.

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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Product Details

	Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target:	IRS4
Alternative Name:	IRS4 (IRS4 Products)
Background:	Insulin receptor substrate 4 (IRS-4) (160 kDa phosphotyrosine protein) (py160) (Phosphoprotein of 160 kDa) (pp160),FUNCTION: Acts as an interface between multiple growth factor receptors possessing tyrosine kinase activity, such as insulin receptor, IGF1R and FGFR1, and a complex network of intracellular signaling molecules containing SH2 domains. Involved in the IGF1R mitogenic signaling pathway. Promotes the AKT1 signaling pathway and BAD phosphorylation during insulin stimulation without activation of RPS6KB1 or the inhibition of apoptosis. Interaction with GRB2 enhances insulin-stimulated mitogen-activated protein kinase activity. May be involved in nonreceptor tyrosine kinase signaling in myoblasts. Plays a pivotal role in the proliferation/differentiation of hepatoblastoma cell through EPHB2 activation upon IGF1 stimulation. May play a role in the signal transduction in response to insulin and to a lesser extent in response to IL4 and GH on mitogenesis. Plays a role in growth, reproduction and glucose homeostasis. May act as negative regulators of the IGF1 signaling pathway by suppressing the function of IRS1 and IRS2. {ECO:0000269|PubMed:10531310, ECO:0000269|PubMed:10594015, ECO:0000269|PubMed:12639902,

Target Details

	ECO:0000269|PubMed:17408801, ECO:0000269|PubMed:9553137}.
Molecular Weight:	133.8 kDa
UniProt:	O14654

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.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

