Datasheet for ABIN3135393

HIF1A Protein (AA 1-836) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	HIF1A
Protein Characteristics:	AA 1-836
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HIF1A protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MEGAGGENEK KKMSSERRKE KSRDAARSRR SKESEVFYEL AHQLPLPHNV SSHLDKASVM RLTISYLRVR KLLDAGGLDS EDEMKAQMDC FYLKALDGFV MVLTDDGDMV YISDNVNKYM GLTQFELTGH SVFDFTHPCD HEEMREMLTH RNGPVRKGKE LNTQRSFFLR MKCTLTSRGR TMNIKSATWK VLHCTGHIHV YDTNSNQPQC GYKKPPMTCL VLICEPIPHP SNIEIPLDSK TFLSRHSLDM KFSYCDERIT ELMGYEPEEL LGRSIYEYYH ALDSDHLTKT HHDMFTKGQV TTGQYRMLAK RGGYVWVETQ ATVIYNTKNS QPQCIVCVNY VVSGIIQHDL IFSLQQTESV LKPVESSDMK MTQLFTKVES EDTSCLFDKL KKEPDALTLL APAAGDTIIS LDFGSDDTET EDQQLEDVPL YNDVMFPSSN EKLNINLAMS PLPSSETPKP LRSSADPALN QEVALKLESS PESLGLSFTM PQIQDQPASP SDGSTRQSSP ERLLQENVNT PNFSQPNSPS EYCFDVDSDM VNVFKLELVE KLFAEDTEAK NPFSTQDTDL DLEMLAPYIP MDDDFQLRSF DQLSPLESNS PSPPSMSTVT GFQQTQLQKP TITATATTTA TTDESKTETK DNKEDIKILI ASPSSTQVPQ

	ETTTAKASAY SGTHSRTASP DRAGKRVIEQ TDKAHPRSLN LSATLNQRNT VPEEELNPKT IASQNAQRKR KMEHDGSLFQ AAGIGTLLQQ PGDCAPTMSL SWKRVKGFIS SEQNGTEQKT IILIPSDLAC RLLGQSMDES GLPQLTSYDC EVNAPIQGSR NLLQGEELLR ALDQVN **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 in one-step affinity chromatography • 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 try to ensure that you receive soluble 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! Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression

Product Details

	System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	HIF1A
Alternative Name:	Hif1a (HIF1A Products)
Background:	Hypoxia-inducible factor 1-alpha (HIF-1-alpha) (HIF1-alpha) (ARNT-interacting protein),FUNCTION: Functions as a master transcriptional regulator of the adaptive response to hypoxia (PubMed:15225651, PubMed:17981124, PubMed:22009797). Under hypoxic conditions, activates the transcription of over 40 genes, including erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial growth factor, HILPDA, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia (PubMed:15225651, PubMed:17981124, PubMed:22009797). Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease (PubMed:22009797). Heterodimerizes with ARNT, heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters (PubMed:26245371). Activation requires recruitment of transcriptional coactivators such as CREBBP and EP300. Activity is enhanced by interaction with NCOA1 and/or NCOA2. Interaction with redox regulatory protein APEX1 seems to activate CTAD and potentiates activation by NCOA1 and CREBBP. Involved in the axonal distribution and transport of mitochondria in neurons during hypoxia (By similarity). {ECO:0000250|UniProtKB:Q16665, ECO:0000269|PubMed:15225651, ECO:0000269|PubMed:17981124, ECO:0000269|PubMed:22009797, ECO:0000269|PubMed:26245371}.
Molecular Weight:	93.5 kDa
UniProt:	Q61221
Pathways:	Positive Regulation of Peptide Hormone Secretion, Regulation of Hormone Metabolic Process, Regulation of Hormone Biosynthetic Process, Cellular Response to Molecule of Bacterial Origin, Carbohydrate Homeostasis, Transition Metal Ion Homeostasis, Tube Formation, Regulation of Carbohydrate Metabolic Process, Signaling Events mediated by VEGFR1 and VEGFR2, VEGFR1 Specific Signals, 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.
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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months