Datasheet for ABIN3092935

HIF3A Protein (AA 1-669) (Strep Tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	HIF3A
Protein Characteristics:	AA 1-669
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HIF3A protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MALGLQRARS TTELRKEKSR DAARSRRSQE TEVLYQLAHT LPFARGVSAH LDKASIMRLT ISYLRMHRLC AAGEWNQVGA GGEPLDACYL KALEGFVMVL TAEGDMAYLS ENVSKHLGLS QLELIGHSIF DFIHPCDQEE LQDALTPQQT LSRRKVEAPT ERCFSLRMKS TLTSRGRTLN LKAATWKVLN CSGHMRAYKP PAQTSPAGSP DSEPPLQCLV LICEAIPHPG SLEPPLGRGA FLSRHSLDMK FTYCDDRIAE VAGYSPDDLI GCSAYEYIHA LDSDAVSKSI HTLLSKGQAV TGQYRFLARS GGYLWTQTQA TVVSGGRGPQ SESIVCVHFL ISQVEETGVV LSLEQTEQHS RRPIQRGAPS QKDTPNPGDS LDTPGPRILA FLHPPSLSEA ALAADPRRFC SPDLRRLLGP ILDGASVAAT PSTPLATRHP QSPLSADLPD ELPVGTENVH RLFTSGKDTE AVETDLDIAQ DADALDLEML APYISMDDDF QLNASEQLPR AYHRPLGAVP RPRARSFHGL SPPALEPSLL PRWGSDPRLS CSSPSRGDPS ASSPMAGARK RTLAQSSEDE DEGVELLGVR PPKRSPSPEH ENFLLFPLSL SFLLTGGPAP GSLQDPSTPL LNLNEPLGLG PSLLSPYSDE DTTQPGGPFQ PRAGSAQAD

	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! 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®):

Product Details

	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)
Grade:	Crystallography grade

Target Details

Target:	HIF3A
Alternative Name:	HIF3A (HIF3A Products)
Background:	Hypoxia-inducible factor 3-alpha (HIF-3-alpha) (HIF3-alpha) (Basic-helix-loop-helix-PAS protein MOP7) (Class E basic helix-loop-helix protein 17) (bHLHe17) (HIF3-alpha-1) (Inhibitory PAS domain protein) (IPAS) (Member of PAS protein 7) (PAS domain-containing protein 7),FUNCTION: Acts as a transcriptional regulator in adaptive response to low oxygen tension. Acts as a regulator of hypoxia-inducible gene expression (PubMed:11573933, PubMed:16126907, PubMed:19694616, PubMed:20416395, PubMed:21069422). Functions as an inhibitor of angiogenesis in hypoxic cells of the cornea. Plays a role in the development of the cardiorespiratory system. May also be involved in apoptosis (By similarity). {ECO:0000250|UniProtKB:Q0VBL6, ECO:0000269|PubMed:11573933, ECO:0000269|PubMed:16126907, ECO:0000269|PubMed:19694616, ECO:0000269|PubMed:20416395, ECO:0000269|PubMed:21069422}., FUNCTION: [Isoform 2]: Attenuates the ability of transcription factor HIF1A to bind to hypoxia-responsive elements (HRE) located within the enhancer/promoter of hypoxia-inducible target genes and hence inhibits HRE-driven transcriptional activation. Also inhibits hypoxia-inducible ARNT-mediated gene expression. {ECO:0000269|PubMed:11573933}., FUNCTION: [Isoform 3]: Attenuates the ability of transcription factor HIF1A to bind to hypoxia-responsive elements (HRE) located within the enhancer/promoter of hypoxia-inducible target genes and hence inhibits HRE-driven transcriptional activation. {ECO:0000269|PubMed:19694616, ECO:0000269|PubMed:20416395, ECO:0000269|PubMed:21069422}., FUNCTION: [Isoform 4]: Attenuates the ability of transcription factor HIF1A and EPAS1/HIF2A to bind to hypoxia-responsive elements (HRE) located within the enhancer/promoter of hypoxia-inducible target genes and hence inhibits HRE-driven transcriptional activation (PubMed:16126907, PubMed:17998805,

Target Details

	PubMed:19694616, PubMed:20416395). May act as a tumor suppressor and inhibits malignant cell transformation (PubMed:17998805). {ECO:0000269|PubMed:16126907, ECO:0000269|PubMed:17998805, ECO:0000269|PubMed:19694616, ECO:0000269|PubMed:20416395}., FUNCTION: [Isoform 5]: Attenuates the ability of transcription factor HIF1A to bind to hypoxia-responsive elements (HRE) located within the enhancer/promoter of hypoxia-inducible target genes and hence inhibits HRE-driven transcriptional activation. {ECO:0000269|PubMed:21069422}.
Molecular Weight:	72.4 kDa
UniProt:	Q9Y2N7
Pathways:	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. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process