Datasheet for ABIN3093486

LEF1 Protein (AA 1-399) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	LEF1
Protein Characteristics:	AA 1-399
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This LEF1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MPQLSGGGGG GGGDPELCAT DEMIPFKDEG DPQKEKIFAE ISHPEEEGDL ADIKSSLVNE SEIIPASNGH EVARQAQTSQ EPYHDKAREH PDDGKHPDGG LYNKGPSYSS YSGYIMMPNM NNDPYMSNGS LSPPIPRTSN KVPVVQPSHA VHPLTPLITY SDEHFSPGSH PSHIPSDVNS KQGMSRHPPA PDIPTFYPLS PGGVGQITPP LGWQGQPVYP ITGGFRQPYP SSLSVDTSMS RFSHHMIPGP PGPHTTGIPH PAIVTPQVKQ EHPHTDSDLM HVKPQHEQRK EQEPKRPHIK KPLNAFMLYM KEMRANVVAE CTLKESAAIN QILGRRWHAL SREEQAKYYE LARKERQLHM QLYPGWSARD NYGKKKKRKR EKLQESASGT GPRMTAAYI **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:

Product Details

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

Target Details

Target:	LEF1

Target Details

Alternative Name:	LEF1 (LEF1 Products)
Background:	Lymphoid enhancer-binding factor 1 (LEF-1) (T cell-specific transcription factor 1-alpha) (TCF1-alpha),FUNCTION: Transcription factor that binds DNA in a sequence-specific manner (PubMed:2010090). Participates in the Wnt signaling pathway (By similarity). Activates transcription of target genes in the presence of CTNNB1 and EP300 (By similarity). PIAG antagonizes both Wnt-dependent and Wnt-independent activation by LEF1 (By similarity). TLE1, TLE2, TLE3 and TLE4 repress transactivation mediated by LEF1 and CTNNB1 (PubMed:11266540). Regulates T-cell receptor alpha enhancer function (PubMed:19653274). Required for IL17A expressing gamma-delta T-cell maturation and development, via binding to regulator loci of BLK to modulate expression (By similarity). Acts as a positive regulator of odontoblast differentiation during mesenchymal tooth germ formation, expression is repressed during the bell stage by MSX1-mediated inhibition of CTNNB1 signaling (By similarity). May play a role in hair cell differentiation and follicle morphogenesis (By similarity). {ECO:0000250|UniProtKB:P27782, ECO:0000269|PubMed:11266540, ECO:0000269|PubMed:19653274, ECO:0000269|PubMed:2010090}., FUNCTION: [Isoform 1]: Transcriptionally activates MYC and CCND1 expression and enhances proliferation of pancreatic tumor cells. {ECO:0000269|PubMed:19653274}., FUNCTION: [Isoform 3]: Lacks the CTNNB1 interaction domain and may therefore be an antagonist for Wnt signaling. {ECO:0000269|PubMed:11326276}., FUNCTION: [Isoform 5]: Transcriptionally activates the fibronectin promoter, binds to and represses transcription from the E-cadherin promoter in a CTNNB1-independent manner, and is involved in reducing cellular aggregation and increasing cell migration of pancreatic cancer cells. {ECO:0000269|PubMed:19653274}.
Molecular Weight:	44.2 kDa
UniProt:	Q9UJU2
Pathways:	WNT Signaling, Intracellular Steroid Hormone Receptor Signaling Pathway, Regulation of Hormone Metabolic Process, Nuclear Hormone Receptor Binding, Chromatin Binding

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

Application Details

	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