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Datasheet for ABIN3095869

TCF7L2 Protein (AA 1-619) (Strep Tag)

2 Images

Overview

Quantity:	1 mg
Target:	TCF7L2
Protein Characteristics:	AA 1-619
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TCF7L2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MPQLNGGGGD DLGANDELIS FKDEGEQEEK SSENSAERD LADVKSSLVN ESETNQNSSS
DSEAERRPPP RSEFRDKSR ESLEEAQRQ DGGLFKGPPY PGYPFIMIPD LTSPYLPNGS
LSPTARTLHF QSGSTHYSAY KTIEHQIAVQ YLQMKWPLLD VQAGSLQSRQ ALKDARSPSP
AHIVSNKVPV VQHPHHVHPL TPLITYSNEH FTPGNPPPHL PADVDPKTGI PRPPHPPDIS
PYYPLSPGTV GQIPHPLGWL VPQQGQPVYP ITTGGFRHPY PTALTVNASM SRFPPHMVPP
HHTLHTTGIP HPAIVTPTVK QESSQSDVGS LHSSKHQDSK KEEKKKPHI KKPLNAFMLY
MKEMRAKVVA ECTLKESAAI NQILGRRWHA LSREEQAKYY ELARKERQLH MQLYPGWSAR
DNYGKKKKRK RDKQPGETNE HSECFLNPCL SLPPITDLA PPKCRARFGL DQQNNWCGPC
RRKKKCVRYI QGEGSCLSPS SSDGSLDSP PPSPNLLGSP PRDAKSQTEQ TQPLSLSLKP
DPLAHLMMMP PPPALLLAEA THKASALCPN GALDLPPAAL QPAAPSSSIA QPSTSSLHSH
SSLAGTQPQP LSLVTKSLE

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®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag
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Product Details

- 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: TCF7L2

Alternative Name: TCF7L2 ([TCF7L2 Products](#))

Background: Transcription factor 7-like 2 (HMG box transcription factor 4) (T-cell-specific transcription factor 4) (T-cell factor 4) (TCF-4) (hTCF-4),FUNCTION: Participates in the Wnt signaling pathway and modulates MYC expression by binding to its promoter in a sequence-specific manner. Acts as a repressor in the absence of CTNNB1, and as activator in its presence. Activates transcription from promoters with several copies of the Tcf motif 5'-CCTTTGATC-3' in the presence of CTNNB1. TLE1, TLE2, TLE3 and TLE4 repress transactivation mediated by TCF7L2/TCF4 and CTNNB1. Expression of dominant-negative mutants results in cell-cycle arrest in G1. Necessary for the maintenance of the epithelial stem-cell compartment of the small intestine.
{ECO:0000269|PubMed:12408868, ECO:0000269|PubMed:12727872, ECO:0000269|PubMed:19443654, ECO:0000269|PubMed:22699938, ECO:0000269|PubMed:9727977}.

Molecular Weight: 67.9 kDa

UniProt: [Q9NQB0](#)

Pathways: [WNT Signaling](#), [Positive Regulation of Peptide Hormone Secretion](#), [Peptide Hormone Metabolism](#), [Regulation of Hormone Metabolic Process](#), [Carbohydrate Homeostasis](#), [Stem Cell Maintenance](#), [Protein targeting to Nucleus](#)

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

Application Details

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.

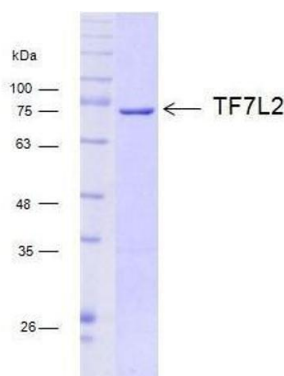
Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

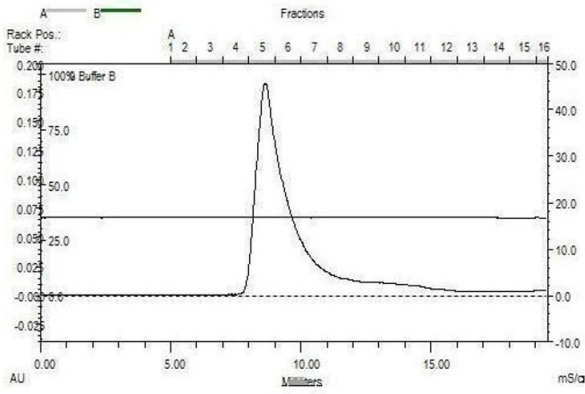
Images



TF7L2 (AA 1-619) His tag,
fraction 6

Size-exclusion chromatography-High Pressure Liquid
Chromatography

Image 1.



TF7L2 (AA 1-619) gel filtration Superdex
75 10 300 G

Western Blotting

Image 2.