Datasheet for ABIN3094160

TR4 Protein (AA 1-596) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	TR4 (NR2C2)
Protein Characteristics:	AA 1-596
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TR4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MTSPSPRIQI ISTDSAVASP QRIQIVTDQQ TGQKIQIVTA VDASGSPKQQ FILTSPDGAG TGKVILASPE TSSAKQLIFT TSDNLVPGRI QIVTDSASVE RLLGKTDVQR PQVVEYCVVC GDKASGRHYG AVSCEGCKGF FKRSVRKNLT YSCRSNQDCI INKHHRNRCQ FCRLKKCLEM GMKMESVQSE RKPFDVQREK PSNCAASTEK IYIRKDLRSP LIATPTFVAD KDGARQTGLL DPGMLVNIQQ PLIREDGTVL LATDSKAETS QGALGTLANV VTSLANLSES LNNGDTSEIQ PEDQSASEIT RAFDTLAKAL NTTDSSSSPS LADGIDTSGG GSIHVISRDQ STPIIEVEGP LLSDTHVTFK LTMPSPMPEY LNVHYICESA SRLLFLSMHW ARSIPAFQAL GQDCNTSLVR ACWNELFTLG LAQCAQVMSL STILAAIVNH LQNSIQEDKL SGDRIKQVME HIWKLQEFCN SMAKLDIDGY EYAYLKAIVL FSPDHPGLTS TSQIEKFQEK AQMELQDYVQ KTYSEDTYRL ARILVRLPAL RLMSSNITEE LFFTGLIGNV SIDSIIPYIL KMETAEYNGQ ITGASL **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 capture material. Eluate fractions are analyzed by SDS-PAGE.

Product Details

	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:	TR4 (NR2C2)
Alternative Name:	NR2C2 (NR2C2 Products)
Background:	Nuclear receptor subfamily 2 group C member 2 (Orphan nuclear receptor TAK1) (Orphan nuclear receptor TR4) (Testicular receptor 4),FUNCTION: Orphan nuclear receptor that can act as a repressor or activator of transcription. An important repressor of nuclear receptor signaling pathways such as retinoic acid receptor, retinoid X, vitamin D3 receptor, thyroid hormone receptor and estrogen receptor pathways. May regulate gene expression during the late phase of spermatogenesis. Together with NR2C1, forms the core of the DRED (direct repeat erythroid-definitive) complex that represses embryonic and fetal globin transcription including that of GATA1. Binds to hormone response elements (HREs) consisting of two 5'-AGGTCA-3' half site direct repeat consensus sequences. Plays a fundamental role in early embryonic development and embryonic stem cells. Required for normal spermatogenesis and cerebellum development. Appears to be important for neurodevelopmentally regulated behavior (By similarity). Activates transcriptional activity of LHCG. Antagonist of PPARA-mediated transactivation. {ECO:0000250, ECO:0000269|PubMed:10347174, ECO:0000269|PubMed:10644740, ECO:0000269|PubMed:17974920, ECO:0000269|PubMed:7779113, ECO:0000269|PubMed:9556573}.
Molecular Weight:	65.4 kDa
UniProt:	P49116
Pathways:	TCR Signaling, Nuclear Receptor Transcription Pathway, Steroid Hormone Mediated Signaling Pathway, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Tube Formation, Toll-Like Receptors Cascades

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)

