

Datasheet for ABIN3084690

NR4A1 Protein (AA 1-598) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	NR4A1
Protein Characteristics:	AA 1-598
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NR4A1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MPCIQAQYGT PAPSPGPRDH LASDPLTPEF IKPTMDLASP EAAPAAPTAL PSFSTFMDGY TGEFDTFLYQ LPGTVQPCSS ASSSASSTSS SSATSPASAS FKFEDEFQVYG CYPGPLSGPV DEALSSSGSD YYGSPCSAPS PSTPSFQPPQ LSPWDGSFGH FSPSQTYEGL RAWTEQLPKA SGPPQPPAFF SFSPTGPSP SLAQSPKLK PSQATHQLGE GESYSMPTAF PGLAPTSPLH EGSGILDTPV TSTKARSGAP GGSEGRCAVC GDNASCQHYG VRTCEGCKGF FKRTVQKNAK YICLANKDCP VDKRRRNRCQ FCRFQKCLAV GMVKEVVRTD SLKGRRGRPL SKPKQPPDAS PANLLTSLVR AHLDSGPSTA KLDYSKFQEL VLPFHGKEDA GDVQQFYDLL SGSLEVIRKW AEKIPGFAEL SPADQDLLLE SAFLELFILR LAYRSKPGEG KLIFCSGLVL HRLQCARGFG DWIDSILAFS RSLHSLLDV PAFACLSALV LITDRHGLQE PRRVEELQNR IASCLKEHVA AVAGEPQPAS CLSRLGKLP ELRTLCTQGL QRIFYLKLED LVPPPIIDK IFMDTLPF</p> <p>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</p>
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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)
Grade:	Crystallography grade

Target Details

Target:	NR4A1
Alternative Name:	NR4A1 (NR4A1 Products)
Background:	<p>Nuclear receptor subfamily 4immunitygroup A member 1 (Early response protein NAK1) (Nuclear hormone receptor NUR/77) (Nur77) (Orphan nuclear receptor HMR) (Orphan nuclear receptor TR3) (ST-59) (Testicular receptor 3),FUNCTION: Orphan nuclear receptor. Binds the NGFI-B response element (NBRE) 5'-AAAGGTCA-3' (PubMed:18690216, PubMed:9315652, PubMed:8121493). Binds 9-cis-retinoic acid outside of its ligand-binding (NR LBD) domain (PubMed:18690216). Participates in energy homeostasis by sequestering the kinase STK11 in the nucleus, thereby attenuating cytoplasmic AMPK activation (PubMed:22983157). Regulates the inflammatory response in macrophages by regulating metabolic adaptations during inflammation, including repressing the transcription of genes involved in the citric acid cycle (TCA) (By similarity). Inhibits NF-kappa-B signaling by binding to low-affinity NF-kappa-B binding sites, such as at the IL2 promoter (PubMed:15466594). May act concomitantly with NR4A2 in regulating the expression of delayed-early genes during liver regeneration (By similarity). Plays a role in the vascular response to injury (By similarity). {ECO:0000250 UniProtKB:P12813, ECO:0000250 UniProtKB:P22829, ECO:0000269 PubMed:15466594, ECO:0000269 PubMed:18690216, ECO:0000269 PubMed:22983157, ECO:0000269 PubMed:8121493, ECO:0000269 PubMed:9315652}., FUNCTION: In the cytosol, upon its detection of both bacterial lipopolysaccharide (LPS) and NBRE-containing mitochondrial DNA released by GSDMD pores during pyroptosis, it promotes non-canonical NLRP3 inflammasome activation by stimulating association of NLRP3 and NEK7. {ECO:0000250 UniProtKB:P12813}.</p>
Molecular Weight:	64.5 kDa
UniProt:	P22736
Pathways:	Fc-epsilon Receptor Signaling Pathway , Nuclear Receptor Transcription Pathway , EGFR

Target Details

Signaling Pathway, Neurotrophin Signaling Pathway, Steroid Hormone Mediated Signaling Pathway

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.

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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)



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