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Datasheet for ABIN3123153
NR0B2 Protein (AA 1-260) (Strep Tag)

Overview

Quantity:	1 mg
Target:	NR0B2
Protein Characteristics:	AA 1-260
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NR0B2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MSSGQSGVCP CQGSAGRPTI LYALLSPSPR TRPVAPASHS HCLCQQQRPV RLCAPHRTCR
EALDVLAKTV AFLRNLP SFC HLPHEHQRR LLECCWGPLFL LGLAQDAVTF EVAEAPVPSI
LKKILLEEAS SGTQGAQPSD RPQPSLAAVQ WLQRCLEFSW SLELGPKEYA YLKG TILFNP
DVPGLRASCH IAHLQQAHW ALCEVLEPWY PASQGLRARI LLMAS TLKNI PG TLLVDLFF
RPIMGDVDIT ELLEDMLLLR

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: <ul style="list-style-type: none">• 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.
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- 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.
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)

Product Details

Grade: Crystallography grade

Target Details

Target: NR0B2

Alternative Name: Nr0b2 ([NR0B2 Products](#))

Background: Nuclear receptor subfamily 0 group B member 2 (Orphan nuclear receptor SHP) (Small heterodimer partner),FUNCTION: Transcriptional regulator that acts as a negative regulator of receptor-dependent signaling pathways (PubMed:8650544). Specifically inhibits transactivation of the nuclear receptor with which it interacts (PubMed:8650544). Inhibits transcriptional activity of NEUROD1 on E-box-containing promoter by interfering with the coactivation function of the p300/CBP-mediated transcription complex for NEUROD1 (By similarity). Essential component of the liver circadian clock which via its interaction with NR1D1 and RORG regulates NPAS2-mediated hepatic lipid metabolism (PubMed:25212631). Regulates the circadian expression of cytochrome P450 (CYP) enzymes (PubMed:30555544). Represses: NR5A2 and HNF4A to down-regulate CYP2C38, NFLI3 to up-regulate CYP2A5, BHLHE41/HNF1A axis to up-regulate CYP1A2, CYP2E1 and CYP3A11, and NR1D1 to up-regulate CYP2B10, CYP4A10 and CYP4A14 (PubMed:30555544). {ECO:0000250|UniProtKB:Q15466, ECO:0000269|PubMed:25212631, ECO:0000269|PubMed:30555544, ECO:0000269|PubMed:8650544}.

Molecular Weight: 28.8 kDa

UniProt: [Q62227](#)

Pathways: [Nuclear Receptor Transcription Pathway](#), [Positive Regulation of Peptide Hormone Secretion](#), [Intracellular Steroid Hormone Receptor 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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Application Details

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)