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# TR4 Protein (AA 1-596) (His tag)





## Overview

Quantity:	1 mg
Target:	TR4 (NR2C2)
Protein Characteristics:	AA 1-596
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TR4 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## **Product Details**

Sequence:

MTSPSPRIQI ISTDSAVASP QRIQIVTDQQ TGQKIQIVTA VDASGSSKQQ FILTSPDGAG
TGKVILASPE TSSAKQLIFT TSDNLVPGRI QIVTDSASVE RLLGKADVQR PQVVEYCVVC
GDKASGRHYG AVSCEGCKGF FKRSVRKNLT YSCRSSQDCI INKHHRNRCQ FCRLKKCLEM
GMKMESVQSE RKPFDVQREK PSNCAASTEK IYIRKDLRSP LIATPTFVAD KDGARQTGLL
DPGMLVNIQQ PLIREDGTVL LAADSKAETS QGALGTLANV VTSLANLSES LNNGDASEMQ
PEDQSASEIT RAFDTLAKAL NTTDSASPPS LADGIDASGG GSIHVISRDQ STPIIEVEGP
LLSDTHVTFK LTMPSPMPEY LNVHYICESA SRLLFLSMHW ARSIPAFQAL GQDCNTSLVR
ACWNELFTLG LAQCAQVMSL STILAAIVNH LQNSIQEDKL SGDRIKQVME HIWKLQEFCN
SMAKLDIDGY EYAYLKAIVL FSPDHPGLTG TSQIEKFQEK AQMELQDYVQ KTYSEDTYRL
ARILVRLPAL RLMSSNITEE LFFTGLIGNV SIDSIIPYIL KMETAEYNGQ ITGASL

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

#### Characteristics:

- Made in Germany from design to production by highly experienced protein experts.
- Mouse Nr2c2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

- 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
- 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:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

Grade:

Crystallography grade

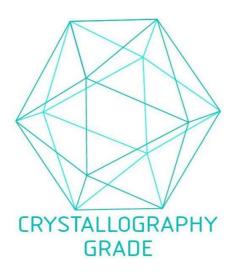
# **Target Details**

Target:	TR4 (NR2C2)
Alternative Name:	Nr2c2 (NR2C2 Products)
Background:	Orphan nuclear receptor that can act as a repressor or activator of transcription. An important
	repressor of nuclear recptor signaling pathways such as retinoic acid receptor, retinoid X,
	vitamin D3 receptor, thyroid hormone receptor and estrogen receptor pathways. May regulate
	gene expression during expression during the late phase of spermatogenesis. Activates
	transcriptional activity of LHCG and is antagonist of PPARA-mediated transactivation (By
	similarity). 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. {ECO:0000250,
	ECO:0000269 PubMed:12093744, ECO:0000269 PubMed:15199144,
	ECO:0000269 PubMed:16887930, ECO:0000269 PubMed:17706948,
	ECO:0000269 PubMed:17974920, ECO:0000269 PubMed:19131575,
	ECO:0000269 PubMed:20393820}.
Molecular Weight:	66.2 kDa Including tag.
UniProt:	P49117
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	
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## Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

# Images



**Image 1.** "Crystallography Grade" protein due to multi-step, protein-specific purification process