

# Datasheet for ABIN3095259 Retinoid X Receptor alpha Protein (AA 1-462) (Strep Tag)



Overview

Quantity:	250 µg
Target:	Retinoid X Receptor alpha (RXRA)
Protein Characteristics:	AA 1-462
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Retinoid X Receptor alpha protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

# Product Details

Brand:	AliCE®
Sequence:	MDTKHFLPLD FSTQVNSSLT SPTGRGSMAA PSLHPSLGPG IGSPGQLHSP ISTLSSPING
	MGPPFSVISS PMGPHSMSVP TTPTLGFSTG SPQLSSPMNP VSSSEDIKPP LGLNGVLKVP
	AHPSGNMASF TKHICAICGD RSSGKHYGVY SCEGCKGFFK RTVRKDLTYT CRDNKDCLID
	KRQRNRCQYC RYQKCLAMGM KREAVQEERQ RGKDRNENEV ESTSSANEDM PVERILEAEL
	AVEPKTETYV EANMGLNPSS PNDPVTNICQ AADKQLFTLV EWAKRIPHFS ELPLDDQVIL
	LRAGWNELLI ASFSHRSIAV KDGILLATGL HVHRNSAHSA GVGAIFDRVL TELVSKMRDM
	QMDKTELGCL RAIVLFNPDS KGLSNPAEVE ALREKVYASL EAYCKHKYPE QPGRFAKLLL
	RLPALRSIGL KCLEHLFFFK LIGDTPIDTF LMEMLEAPHQ MT
	Sequence without tag. The proposed Strep-Tag is based on experience $\ensuremath{s}$ 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.

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 1/5 | Product datasheet for ABIN3095259 | 02/25/2025 | Copyright antibodies-online. All rights reserved.

### Product Details

#### Characteristics:

#### Key Benefits:

- Made in Germany from design to production by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 posttranslational 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 2/5 | Product datasheet for ABIN3095259 | 02/25/2025 | Copyright antibodies-online. All rights reserved.

Target Details	
Target:	Retinoid X Receptor alpha (RXRA)
Alternative Name:	RXRA (RXRA Products)
Background:	Retinoic acid receptor RXR-alpha (Nuclear receptor subfamily 2 group B member 1) (Retinoid X
	receptor alpha),FUNCTION: Receptor for retinoic acid that acts as a transcription factor
	(PubMed:11162439, PubMed:11915042). Forms homo- or heterodimers with retinoic acid
	receptors (RARs) and binds to target response elements in response to their ligands, all-trans or
	9-cis retinoic acid, to regulate gene expression in various biological processes
	(PubMed:10195690, PubMed:11162439, PubMed:11915042, PubMed:28167758,
	PubMed:17761950, PubMed:16107141, PubMed:18800767, PubMed:19167885). The RAR/RXR
	heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-
	AGGTCA-3' sites known as DR1-DR5 to regulate transcription (PubMed:10195690,
	PubMed:11162439, PubMed:11915042, PubMed:17761950, PubMed:28167758). The high
	affinity ligand for retinoid X receptors (RXRs) is 9-cis retinoic acid (PubMed:1310260). In the
	absence of ligand, the RXR-RAR heterodimers associate with a multiprotein complex containing
	transcription corepressors that induce histone deacetylation, chromatin condensation and
	transcriptional suppression (PubMed:20215566). On ligand binding, the corepressors
	dissociate from the receptors and coactivators are recruited leading to transcriptional
	activation (PubMed:20215566, PubMed:9267036). Serves as a common heterodimeric partner
	for a number of nuclear receptors, such as RARA, RARB and PPARA (PubMed:10195690,
	PubMed:11915042, PubMed:28167758, PubMed:29021580). The RXRA/RARB heterodimer can
	act as a transcriptional repressor or transcriptional activator, depending on the RARE DNA
	element context (PubMed:29021580). The RXRA/PPARA heterodimer is required for PPARA
	transcriptional activity on fatty acid oxidation genes such as ACOX1 and the P450 system
	genes (PubMed:10195690). Together with RARA, positively regulates microRNA-10a
	expression, thereby inhibiting the GATA6/VCAM1 signaling response to pulsatile shear stress in
	vascular endothelial cells (PubMed:28167758). Acts as an enhancer of RARA binding to RARE
	DNA element (PubMed:28167758). May facilitate the nuclear import of heterodimerization
	partners such as VDR and NR4A1 (PubMed:12145331, PubMed:15509776). Promotes myelin
	debris phagocytosis and remyelination by macrophages (PubMed:26463675). Plays a role in
	the attenuation of the innate immune system in response to viral infections, possibly by
	negatively regulating the transcription of antiviral genes such as type I IFN genes
	(PubMed:25417649). Involved in the regulation of calcium signaling by repressing ITPR2 gene
	expression, thereby controlling cellular senescence (PubMed:30216632).
	{ECO:0000269 PubMed:10195690, ECO:0000269 PubMed:11162439,
	ECO:0000269 PubMed:11915042, ECO:0000269 PubMed:12145331,

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 3/5 | Product datasheet for ABIN3095259 | 02/25/2025 | Copyright antibodies-online. All rights reserved.

	ECO:0000269 PubMed:1310260, ECO:0000269 PubMed:15509776,
	ECO:0000269 PubMed:16107141, ECO:0000269 PubMed:17761950,
	ECO:0000269 PubMed:18800767, ECO:0000269 PubMed:19167885,
	EC0:0000269 PubMed:20215566, EC0:0000269 PubMed:25417649,
	EC0:0000269 PubMed:26463675, EC0:0000269 PubMed:28167758,
	EC0:0000269 PubMed:29021580, EC0:0000269 PubMed:30216632,
	EC0:0000269 PubMed:9267036}.
Molecular Weight:	50.8 kDa
UniProt:	P19793
Pathways:	Nuclear Receptor Transcription Pathway, Retinoic Acid Receptor Signaling Pathway, Steroid
	Hormone Mediated Signaling Pathway, Regulation of Lipid Metabolism by PPARalpha, Hepatitis
	C
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.

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 4/5 | Product datasheet for ABIN3095259 | 02/25/2025 | Copyright antibodies-online. All rights reserved.

## Handling

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months