

Datasheet for ABIN7555379

**Retinoid X Receptor alpha Protein (AA 1-462) (His tag)**[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	Retinoid X Receptor alpha (RXRA)
Protein Characteristics:	AA 1-462
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Retinoid X Receptor alpha protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant RXRA Protein expressed in mammalian cells.
Sequence:	MDTKHFLPLD FSTQVNSSLT SPTGRGSMAS PSLHPSLGGP IGSPGQLHSP ISTLSSPING MGPPFSVISS PMGPHSMSVP TTPTLGFSTG SPQLSSPMNP VSSSEDIKPP LGLNGVLKVP AHPSGNMA SF TKHICAICGD RSSGKHYGVY SCEGCKGFFK RTVRKDLTYT CRDNKDCLID KRQRNRCQYC RYQKCLAMGM KREAVQEERQ RGKDRNENEV ESTSSANEDM PVERILEAEL AVEPKTETYV EANMGLNPSS PNDPVTNICQ AADKQLFTLV EWAKRIPHFS ELPLDDQVIL LRAGWNELLI ASFSHRSAIV KDGILLATGL HVHRNSAHS A VGGAIFDRVL TELVSKMRDM QMDKTELGCL RAIVLFPNDS KGLSNPAEVE ALREKVYASL EAYCKHKYPE QPGRFAKLLL RLPALRSIGL KCLEHLFFFK LIGDTPIDTF LMEMLEAPHQ MT <b>Sequence without tag. The proposed Purification-Tag is based on experiences 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.</b>
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different

## Product Details

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isoform, please contact us regarding an individual offer.

### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

### Purity:

> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

### Grade:

custom-made

## Target Details

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### 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

## Target Details

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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, ECO:0000269|PubMed:1310260, ECO:0000269|PubMed:15509776, ECO:0000269|PubMed:16107141, ECO:0000269|PubMed:17761950, ECO:0000269|PubMed:18800767, ECO:0000269|PubMed:19167885, ECO:0000269|PubMed:20215566, ECO:0000269|PubMed:25417649, ECO:0000269|PubMed:26463675, ECO:0000269|PubMed:28167758, ECO:0000269|PubMed:29021580, ECO:0000269|PubMed:30216632, ECO:0000269|PubMed:9267036}.

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Molecular Weight: 50.8 kDa

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UniProt: [P19793](#)

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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

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Application Notes: We expect the protein to work for functional studies. 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

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## Handling

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months

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