

## Recombinant RXR- $\alpha$ (RXRA) protein

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**Catalog No:** 81082, 81782

**Lot No:** 20917001

**Expressed In:** Baculovirus

**Quantity:** 20, 1000  $\mu$ g

**Concentration:** 0.25  $\mu$ g/ $\mu$ l

**Source:** Human

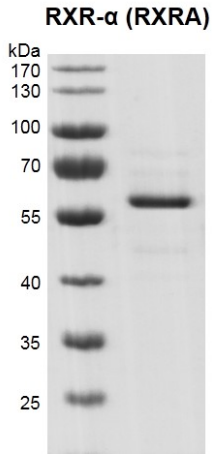
**Buffer Contents:** Recombinant RXR- $\alpha$  (RXRA) protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100 and 0.5 mM TCEP.

**Background:** RXR- $\alpha$  or so called RXRA (Retinoid X Receptor Alpha), also known as NR2B1, is a receptor for retinoic acid. Retinoic acid receptors bind as heterodimers to their target response elements in response to their ligands, all-trans or 9-cis retinoic acid, and regulate gene expression in various biological processes. The RAR/RXR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5-AGGTCA-3 sites known as DR1-DR5. The high affinity ligand for RXRs is 9-cis retinoic acid. RXRA serves as a common heterodimeric partner for a number of nuclear receptors. In the absence of ligand, the RXR-RAR heterodimers associate with a multiprotein complex containing transcription corepressors that induce histone acetylation, chromatin condensation and transcriptional suppression. On ligand binding, the corepressors dissociate from the receptors and associate with the coactivators leading to transcriptional activation. The RXRA/PPARA heterodimer is required for PPARA transcriptional activity on fatty acid oxidation genes such as ACOX1 and the P450 system genes.

**Protein Details:** Recombinant human RXR- $\alpha$  (RXRA) protein was expressed in a baculovirus expression system as the full length protein (accession number NP\_002948.1) with an N-terminal FLAG tag. The molecular weight of the protein is 52.1 kDa.

**Application Notes:** This protein is suitable for use in protein-protein interaction, *in vitro* transcription assay, binding assay.

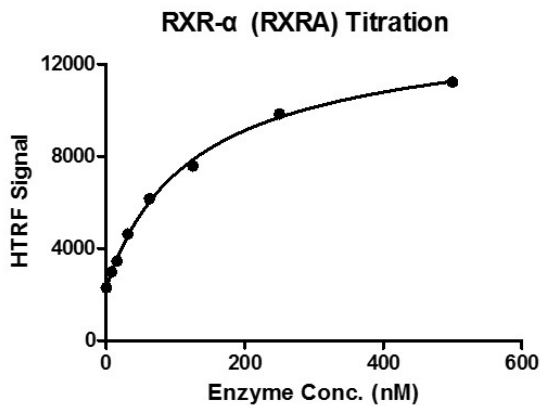
**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



**Recombinant RXR- $\alpha$  (RXRA) protein gel**

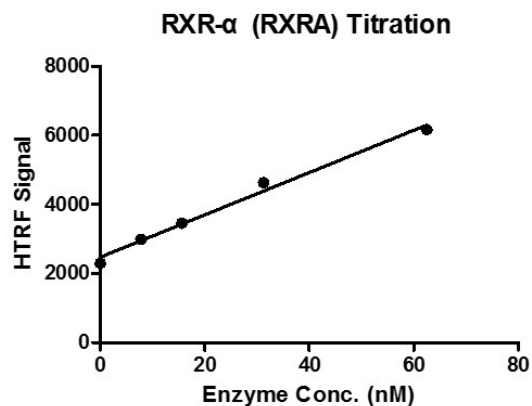
10% SDS-PAGE Coomassie staining

MW: 52.1 kDa Purity: >90%



**HTRF assay for RXR- $\alpha$  (RXRA) activity**

1  $\mu$ M dsDNA oligos (DNA sequence: 5'-ATAGGTCACGGAGAGGTCAGC-3') were incubated with different concentrations of protein in 10  $\mu$ l binding system containing 50mM HEPES-NaOH pH7.5, 0.1% BSA for 1 hour, then 10  $\mu$ l FLAG antibody and SA-XL665 mixture (each 1:100 dilution in Binding Buffer) was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



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