

Recombinant Human Retinoic Acid Receptor, Alpha, His-tagged

Cat. No. RARA-190H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Retinoic Acid Receptor Alpha (His-tagged) produced in <i>E. Coli</i> is a single, non-glycosylated polypeptide chain. The protein contains 127 amino acids and has a molecular mass of 14 kDa.
Species	Human
Source	E.coli
Description	Retinoic acid receptor alpha (RAR) belongs to the large family of ligand responsive gene regulatory proteins that includes receptors for steroid and thyroid hormones. These proteins contain two highly conserved domains that are involved in determining their DNA and ligand-binding activities. There are three isotypes of RAR proteins: alpha, beta, and gamma. The RAR proteins are encoded by distinct genetic loci and possess distinct transcriptional properties. Typically, RAR-alpha represses target gene transcription in the absence of hormone, whereas RAR-beta and gamma fail to repress under these conditions. RARA is a receptor for retinoic acid that has profound effects on vertebrate development. Retinoic acid is a morphogen and is a powerful teratogen. RARA controls cell function by directly regulating gene expression. Chromosomal aberrations involving RARA cause acute promyelocytic leukemia (APL).
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MSEEIVSPSP SPPPLPRIYK PCFVCQDKSS GYHYGVSACE GCKGFFRRSI QKNMVYTCHR DKNCIINKVT RNRCQYCRLQ

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KCFEVGMSKESVRNDRNKKK KEVPKPE.

Physical Appearance Sterile Filtered colorless solution.

Formulation The protein solution contains 20mM Tris pH-7.5, 0.1M NaCl & 5mMβ-ME.

Purity Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Stability RARA although stable 14°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name [RARA retinoic acid receptor, alpha \[Homo sapiens \]](#)

Synonyms RARA; NR1B1; RAR; RAR-alpha; Retinoic acid receptor, alpha; Retinoic acid receptor alpha; OTTHUMP00000164454; OTTHUMP00000164456; Nuclear receptor subfamily 1 group B member 1; Retinoic acid receptor, alpha polypeptide; retinoic acid receptor, alpha; nucleophosmin-retinoic acid receptor alpha fusion protein NPM-RAR long form; Retinoic acid receptor alpha (RAR-alpha); NR1B1 (nuclear receptor subfamily 1, group B, member 1)

Gene ID [5914](#)

mRNA Refseq [NM_000964](#)

Protein Refseq [NP_000955](#)

MIM [180240](#)

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UniProt ID	P10276
Chromosome Location	17q21
Pathway	Acute myeloid leukemia; Pathways in cancer
Function	metal ion binding; protein binding; retinoic acid binding; retinoic acid receptor activity; sequence-specific DNA binding; steroid hormone receptor activity; transcription coactivator activity; transcription factor activity; zinc ion binding
PDB rendering based on 1dkf.	