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# **Product Datasheet**

Product Name Retinoic Acid Receptor Alpha Human Recombinant

Cata No CB501453
Source Escherichia Coli.

Synonyms Retinoic acid receptor alpha, RAR-alpha, Nuclear receptor subfamily 1 group B

member 1,RAR, NR1B1, RARA.

## **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).

Retinoic-Acid Receptor Alpha Human Recombinant fused to N-terminal His-Tag produced in E.Coli is a single, non-glycosylated polypeptide chain containing 127 amino acids and having a molecular mass of 14 kDa.

**Physical Appearance** 

Sterile Filtered colorless solution.

## **Purity**

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

### **Formulation**

The protein solution contains 20mM Tris pH-7.5, 0.1M NaCl & 5mM  $\beta$ -ME

## **Stability**

RARA although stable 4°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.

#### Sequence

MGSSHHHHHH SSGLVPRGSH MSEEIVPSPP SPPPLPRIYK PCFVCQDKSS GYHYGVSACE GCKGFFRRSI QKNMVYTCHR DKNCIINKVT RNRCQYCRLQ KCFEVGMSKESVRNDRNKKK KEVPKPE.