



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet Recombinant Human Estrogen Receptor Alpha

**Catalog No.**  
228-10408

**Source**  
*Escherichia coli*

## Synonyms

Estrogen receptor, ER, Estradiol receptor, ER-alpha, Nuclear receptor subfamily 3 group A member 1, ESR1, ESR, NR3A1, Era, ESRA, DKFZp686N23123, ER-a, Estrogen Receptor alpha.

## Introduction

Estrogen receptor is a ligand-activated transcription factor composed of several domains essential for hormone binding, DNA binding, and activation of transcription. Estrogen and its receptors are crucial for sexual development and reproductive function, but also play a role in other tissues such as bone. The Estrogen Receptor is a significant regulator of growth and differentiation in the mammary gland. Estrogen receptors are also implicated in pathological processes including breast cancer, endometrial cancer, and osteoporosis.

The presence of estrogen receptors in breast tumors indicates an increased probability of response to anti-estrogen therapy (e.g. tamoxifen).

The Estrogen Receptor gene is divided into 8 exons having a genomic length of more than 140kbp. The Estrogen Receptor has 6 functionally separate domains, named A - F. Alternative splicing results in a number of transcript variations, which differ in their 5' UTRs and use different promoters. The protein is restricted to the nucleus where it may form a homodimer or a heterodimer with estrogen receptor 2.

## Description

ER  $\alpha$  Human Recombinant (a.a. 1-300) expressed in E.coli, shows a 59 kDa SDS-PAGE.

The ER  $\alpha$  is purified by proprietary chromatographic techniques.

## Physical Appearance

Sterile Filtered clear solution.

## Formulation

ER-alpha at 100 $\mu$ g/ml in 50mM Tris-HCl, pH7.5 and 10mM L-glutathione (reduced).

## Applications

- ELISA
- Inhibition Assays
- Western Blotting

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### ***Storage***

Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months.

**Please prevent freeze-thaw cycles.**

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