

Active Recombinant Human Estrogen Receptor 1

Cat. No. ESR1-1033H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source Sf9 Cells

Description

Recombinant His tagged ER was expressed in a baculovirus system and purified by an affinity column in combination with FPLC chromatography. Several members of nuclear receptor family are directly associated with human malignancies including breast cancer, prostate cancer and leukemia. The pathogenesis of each of these diseases is underpinned by the activities of a member of the superfamily; Estrogen Receptoralpha (ER) in breast cancer, Androgen Receptor (AR) in prostate cancer, and Retinoic Acid Receptor alpha (RAR) in acute promyelocytic leukemia. Estrogen receptors (ER) are members of the superfamily of nuclear hormone receptors whose activity is required for the normal function of the female reproductive system. Two isoforms of Estrogen Receptor (ER and ER) have been described. They function as ligand-dependent transcriptional activators. The biological functions downstream of ER result from altered expression of direct transcriptional targets as well as secondary effects mediated by biological activities of direct targets. In the mammary gland, estrogen receptors regulate normal epithelial cell development and differentiation through their well-documented effects on transcription. Estrogens have long been known to have mitogenic functions in breast cancer cell lines and in breast tumors. Selective Estrogen Receptor Modulatory compounds (SERMs), which bind directly to ER, can block the growth stimulatory function of estrogens.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Application	ER has been applied in DNA and protein-protein interaction assays.
Usage	For in vitro use only.
Form	Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.
Activity	20-100 ng are sufficient for an in vitro transcription assay and 100 ng are sufficient for a protein-protein interactions assay.
Purity	> 95% by SDS-PAGE.
Storage	Quality guaranteed for 12 months, Store at -80°C. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	ESR1 estrogen receptor 1 [Homo sapiens]
Synonyms	ESR1; estrogen receptor 1; ER; ESR; Era; ESRA; NR3A1; DKFZp686N23123; Estrogen receptor; ER-alpha; Nuclear receptor subfamily 3 group A member 1
Gene ID	2099
mRNA Refseq	NM_000125
Protein Refseq	NP_000116
MIM	133430
UniProt ID	P03372

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**Chromosome
Location**

6q24-q27

Function

estrogen receptor activity; estrogen response element binding; hormone binding; metal ion binding; nitric-oxide synthase regulator activity; protein N-terminus binding; sequence-specific DNA binding; steroid binding; transcription factor activity; zinc ion binding

**PDB rendering based
on 1a52.**

