

**Product Name: ER $\alpha$  Rabbit Polyclonal Antibody**  
**Catalog #: APRab10620**



## Summary

<b>Production Name</b>	ER $\alpha$ Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	IHC, WB, ELISA
<b>Reactivity</b>	Human, Rat, Mouse

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	ESR1
<b>Alternative Names</b>	ESR1; ESR; NR3A1; Estrogen receptor; ER; ER-alpha; Estradiol receptor; Nuclear receptor subfamily 3 group A member 1
<b>Gene ID</b>	2099.0
<b>SwissProt ID</b>	P03372. The antiserum was produced against synthesized peptide derived from human Estrogen Receptor-alpha. AA range:136-185

## Application

<b>Dilution Ratio</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:20000..
<b>Molecular Weight</b>	66kD

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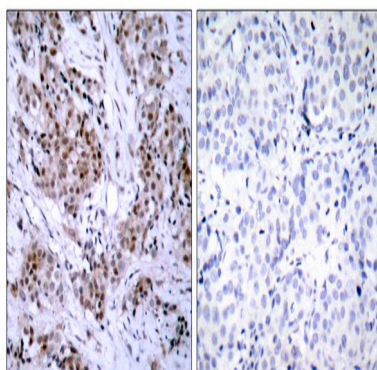
## Background

This gene encodes an estrogen receptor, a ligand-activated transcription factor composed of several domains important for hormone binding, DNA binding, and activation of transcription. The protein localizes to the nucleus where it may form a homodimer or a heterodimer with estrogen receptor 2. Estrogen and its receptors are essential for sexual development and reproductive function, but also play a role in other tissues such as bone. Estrogen receptors are also involved in pathological processes including breast cancer, endometrial cancer, and osteoporosis. Alternative promoter usage and alternative splicing result in dozens of transcript variants, but the full-length nature of many of these variants has not been determined. [provided by RefSeq, Mar 2014],domain:Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal steroid-binding domain.,function:Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues.,online information:Estrogen receptor entry,polymorphism:Genetic variations in ESR1 are correlated with bone mineral density (BMD). Low BMD is a risk factor for osteoporotic fracture. Osteoporosis is characterized by reduced bone mineral density, disruption of bone microarchitecture, and the alteration of the amount and variety of non-collagenous proteins in bone. Osteoporotic bones are more at risk of fracture.,PTM:Glycosylated; contains N-acetylglucosamine, probably O-linked.,PTM:Phosphorylated by cyclin A/CDK2. Phosphorylation probably enhances transcriptional activity.,similarity:Belongs to the nuclear hormone receptor family.,similarity:Belongs to the nuclear hormone receptor family. NR3 subfamily.,similarity:Contains 1 nuclear receptor DNA-binding domain.,subunit:Interacts with SLC30A9 (By similarity). Binds DNA as a homodimer. Can form a heterodimer with ESR2. Interacts with NCOA3, NCOA5 and NCOA6 coactivators, leading to a strong increase of transcription of target genes. Interacts with NCOA7 in a ligand-inducible manner. Interacts with PHB2, PELP1 and UBE1C. Interacts with AKAP13. Interacts with CUEDC2. Interacts with KDM5A. Interacts with SMARD1. Interacts with HEXIM1 and MAP1S. Interacts with PBXIP1. Interaction with MUC1 is stimulated by 17 $\beta$ -estradiol (E2) and enhances ESR1-mediated transcription. Interacts with DNTTIP2, FAM120B and UIMC1. Interacts with isoform 4 of TXNRD1. Interacts with MLL2. Interacts with ATAD2 and this interaction is enhanced by estradiol.,

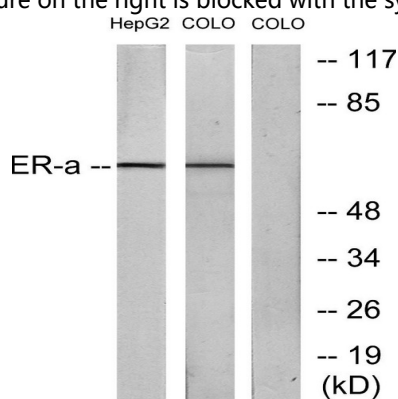
## Research Area

## Image Data

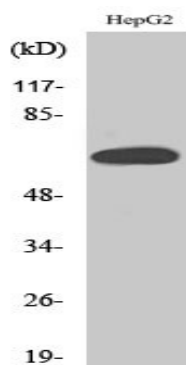
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Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using Estrogen Receptor-alpha Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HepG2 and COLO cells, treated with EGF, using Estrogen Receptor-alpha Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using ER $\alpha$  Polyclonal Antibody diluted at 1: 500

## Note

For research use only.