

## Product datasheet for **AP01581PU-M**

### Estrogen Receptor 1 (ESR1) pSer104 Rabbit Polyclonal Antibody

#### Product data:

|                       |   |
|-----------------------|---|
| Product Type:         | Primary Antibodies  |
| Applications:         | IHC, WB   |
| Recommended Dilution: | ELISA: 1/5000-1/10000.<br>Western Blot: 1/500-1/1000.<br>Immunohistochemistry: 1/50-1/200.  |
| Reactivity:           | Human, Mouse, Rat   |
| Host:                 | Rabbit  |
| Clonality:            | Polyclonal  |
| Specificity:          | This antibody detects endogenous levels of Estrogen Receptor-alpha pSer104 protein.   |
| Formulation:          | Phosphate buffered saline (PBS), pH~7.2 containing 15 mM Sodium Azide as preservative.<br>State: Aff - Purified<br>State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE). |
| Concentration:        | 1.0 mg/ml   |
| Purification:         | Affinity Chromatography using epitope-specific immunogen.   |
| Conjugation:          | Unconjugated  |
| Storage:              | Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.<br>Avoid repeated freezing and thawing.   |
| Stability:            | Shelf life: One year from despatch.   |
| Gene Name:            | estrogen receptor 1   |
| Database Link:        | <a href="#">Entrez Gene 2099 Human P03372</a>   |



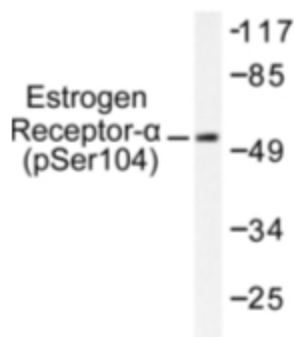
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**Background:**

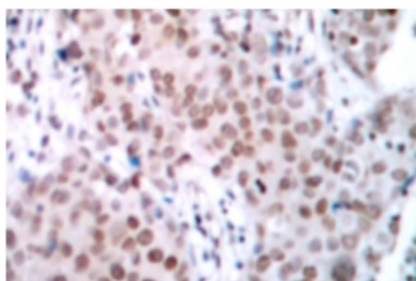
Estrogen receptor  $\alpha$  (ER $\alpha$ , ER, ESR, ESRA, Era, NR3A1, estrogen receptor 1) is a ligand-activated transcription factor composed of several domains important for hormone binding, DNA binding and activation of transcription. Alternative splicing results in several ER $\alpha$  mRNA transcripts, which differ primarily in their 5' untranslated regions. ER $\alpha$  undergoes phosphorylation in response to estradiol binding. Human ER $\alpha$  is predominately phosphorylated on Ser 118 and to a lesser extent on Ser 104 and Ser 106. In response to activation of the mitogen-activated protein kinase pathway, phosphorylation occurs on Ser 118 and Ser 167. These Serine residues are all located within the activation function 1 region of the N-terminal domain of ER $\alpha$ . In contrast, activation of protein kinase A increases the phosphorylation of Ser 236, which is located in the DNA-binding domain. Src kinase-dependent Tyr 537 phosphorylation may enhance estrogen binding to ER $\alpha$ . Mutation of Tyr 537 of the human ER $\alpha$  produces receptors having a range of constitutive activity.

**Synonyms:**

ER alpha, Estradiol receptor, ESR1, ESR, NR3A1

**Product images:**


Western blot (WB) analysis of Estrogen Receptor-alpha pSer104 antibody in extracts from 293 cells.



Immunohistochemistry (IHC) analysis of Estrogen Receptor-alpha pSer104 antibody in paraffin-embedded human breast carcinoma tissue.