

Product datasheet for **TA384190**

Estrogen Receptor 1 (ESR1) Rabbit Monoclonal Antibody [Clone ID: R05-1E4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R05-1E4
Applications:	ChIP, IF, IHC, IP, WB
Recommended Dilution:	WB: 1/1000 IHC: 1/50 ICC/IF: 1/500 IP: 1/20 ChIP: 1/20
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human Estrogen Receptor alpha
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 66 kDa; Observed MW: 66 kDa
Gene Name:	estrogen receptor 1
Database Link:	Entrez Gene 2099 Human P03372



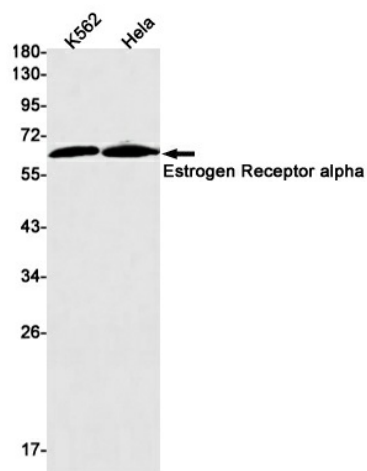
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Background:

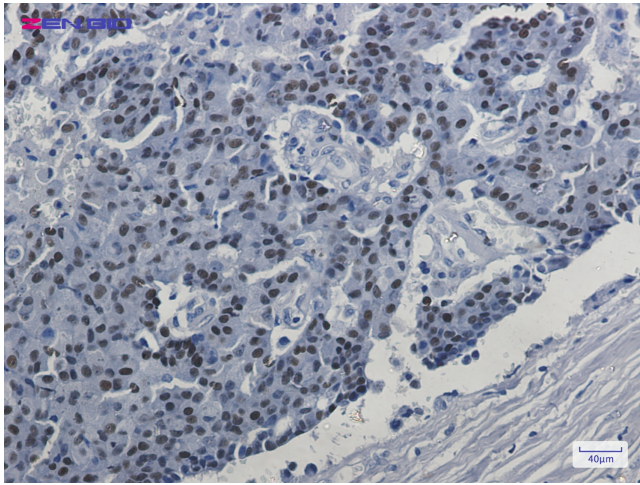
Swiss-Prot Acc.P03372.Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Ligand-dependent nuclear transactivation involves either direct homodimer binding to a palindromic estrogen response element (ERE) sequence or association with other DNA-binding transcription factors, such as AP-1/c-Jun, c-Fos, ATF-2, Sp1 and Sp3, to mediate ERE-independent signaling. Ligand binding induces a conformational change allowing subsequent or combinatorial association with multiprotein coactivator complexes through LXXLL motifs of their respective components. Mutual transrepression occurs between the estrogen receptor (ER) and NF-kappa-B in a cell-type specific manner. Decreases NF-kappa-B DNA-binding activity and inhibits NF-kappa-B-mediated transcription from the IL6 promoter and displace RELA/p65 and associated coregulators from the promoter. Recruited to the NF-kappa-B response element of the CCL2 and IL8 promoters and can displace CREBBP. Present with NF-kappa-B components RELA/p65 and NFKB1/p50 on ERE sequences. Can also act synergistically with NF-kappa-B to activate transcription involving respective recruitment adjacent response elements; the function involves CREBBP. Can activate the transcriptional activity of TFF1. Also mediates membrane-initiated estrogen signaling involving various kinase cascades. Isoform 3 is involved in activation of NOS3 and endothelial nitric oxide production. Isoforms lacking one or several functional domains are thought to modulate transcriptional activity by competitive ligand or DNA binding and/or heterodimerization with the full-length receptor. Essential for MTA1-mediated transcriptional regulation of BRCA1 and BCAS3. Isoform 3 can bind to ERE and inhibit isoform 1.

Synonyms:

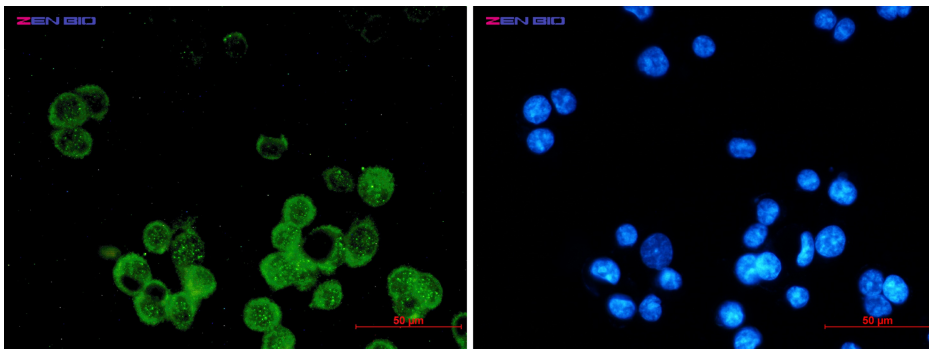
DKFZp686N23123; ER; ER-alpha; Era; ESR; ESRA; NR3A1

Product images:

Western blot detection of Estrogen Receptor alpha in K562, HeLa cell lysates using Estrogen Receptor alpha Rabbit mAb (1:1000 diluted). Predicted band size: 66 kDa. Observed band size: 66 kDa.



Immunohistochemistry of Estrogen Receptor alpha in paraffin-embedded Human breast cancer tissue using Estrogen Receptor alpha Rabbit mAb at dilution 1/50



Immunocytochemistry of Estrogen Receptor alpha (green) in MCF-7 using Estrogen Receptor alpha antibody at dilution 1/2, and DAPI(blue)