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Rabbit Anti-Estrogen receptor alpha antibody

SL0253R

Product Name	Estrogen receptor alpha
Chinese Name	雌激素受体 α 抗体
Alias	Estradiol receptor; Estrogen receptor alpha; Estradiol Receptor-alpha; Estrogen Receptor 1; Athe susceptibility to, included; DKFZp686N23123; ER Alpha; ER; ER-alpha; ERalpha; ER[a]; Era; ESR1_HUMAN; ESR2; ESRA; Estr; Estrogen receptor 1 (alpha); Estrogen resistance, included; cholesterol, augmented response of, to hormone replacement, included; Myocardial infarction, s included; NR3A1; Nuclear receptor subfamily 3 group A member 1; OTTHUMP00000017718; OTTHUMP00000017719; RNESTROR.
Research Area	Tumour Chromatin and nuclear signals Signal transduction Endocrinopathy TumourCell biology Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, (predicted: Mouse, Rat,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	66kDa
Cellular localization	The nucleus cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Estrogen Receptor alpha : 241-300/595
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

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Attention This product as supplied is intended for research use only, not for use in human, therapeutic or d applications.

PubMed PubMed

Product Detail

Estrogen and progesterone receptor are members of a family of transcription factors that are regu binding of their cognate ligands. The interaction of hormone-bound estrogen receptors with estro elements(EREs) alters transcription of ERE-containing genes. The carboxy terminal region of th receptor contains the ligand binding domain, the amino terminus serves as the transactivation do DNA binding domain is centrally located. Two forms of estrogen receptor have been identified, ER Beta. ER Alpha and ER Beta have been shown to be differentially activated by various ligan biological response to progesterone is mediated by two distinct forms of the human progesterone (hPR-A and hPR-B), which arise from alternative splicing. In most cells, hPR-B functions as a t activator of progesterone-responsive gene, whereas hPR-A function as a transcriptional inhibitor hormone receptors.

Function:
Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulatio gene expression and affect cellular proliferation and differentiation in target tissues. Ligand-depe transactivation involves either direct homodimer binding to a palindromic estrogen response ele sequence or association with other DNA-binding transcription factors, such as AP-1/c-Jun, c-Fos and Sp3, to mediate ERE-independent signaling. Ligand binding induces a conformational chang subsequent or combinatorial association with multiprotein coactivator complexes through LXXL their respective components. Mutual transrepression occurs between the estrogen receptor (ER) a in a cell-type specific manner. Decreases NF-kappa-B DNA-binding activity and inhibits NF-kap transcription from the IL6 promoter and displace RELA/p65 and associated coregulators from th Recruited to the NF-kappa-B response element of the CCL2 and IL8 promoters and can displace Present with NF-kappa-B components RELA/p65 and NFKB1/p50 on ERE sequences. Can also synergistically with NF-kappa-B to activate transcription involving respective recruitment adjac elements; the function involves CREBBP. Can activate the transcriptional activity of TFF1. Also membrane-initiated estrogen signaling involving various kinase cascades. Isoform 3 is involved NOS3 and endothelial nitric oxide production. Isoforms lacking one or several functional domain modulate transcriptional activity by competitive ligand or DNA binding and/or heterodimerizatio length receptor. Isoform 3 can bind to ERE and inhibit isoform 1.

Subunit:
Binds DNA as a homodimer. Can form a heterodimer with ESR2. Isoform 3 can probably homo heterodimerize with isoform 1 and ESR2. Interacts with FOXC2, MAP1S, SLC30A9, UBE1C a coactivator (By similarity). Interacts with EP300; the interaction is estrogen-dependent and enha CITED1. Interacts with CITED1; the interaction is estrogen-dependent. Interacts with NCOA5 a coactivators. Interacts with NCOA7; the interaction is a ligand-inducible. Interacts with PHB2, P UBE1C. Interacts with AKAP13. Interacts with CUEDC2. Interacts with KDM5A. Interacts wit Interacts with HEXIM1. Interacts with PBXIP1. Interaction with MUC1 is stimulated by 7 beta- and enhances ERS1-mediated transcription. Interacts with DNTTIP2, FAM120B and UIMC1. In isoform 4 of TXNRD1. Interacts with MLL2. Interacts with ATAD2 and this interaction is enha

estradiol. Interacts with KIF18A and LDB1. Interacts with RLIM (via C-terminus). Interacts wit
Interacts with SH2D4A and PLCG. Interaction with SH2D4A blocks binding to PLCG and inhib
estrogen-induced cell proliferation. Interacts with DYNLL1. Interacts with CCDC62 in the prese
estradiol/E2; this interaction seems to enhance the transcription of target genes. Interacts with N
interaction prevents homodimerization of ESR1 and suppresses its transcriptional activity and ce
Interacts with DYX1C1. Interacts with PRMT2. Interacts with PI3KR1 or PI3KR2, SRC and PT
Interacts with RBFOX2. Interacts with STK3/MST2 only in the presence of SAV1 and vice-vers
CSNK1D. Interacts with NCOA2; NCOA2 can interact with ESE1 AF-1 and AF-2 domains simu
mediate their transcriptional synergy. Interacts with DDX5. Interacts with NCOA1; the interactio
require a self-association of N-terminal and C-terminal regions. Interacts with ZNF366, DDX17
RELA, SP1 and SP3. Interacts with NRIP1 (By similarity).

Subcellular Location:
Isoform 1: Nucleus. Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side.
fraction is associated with the inner membrane.
Isoform 3: Nucleus. Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side
membrane; Single-pass type I membrane protein. Note=Associated with the inner membrane via
(Probable). At least a subset exists as a transmembrane protein with a N-terminal extracellular do
Nucleus. Golgi apparatus. Cell membrane. Note=Colocalizes with ZDHHC7 and ZDHHC21 in t
apparatus where most probably palmitoylation occurs. Associated with the plasma membrane wh
palmitoylated.

Tissue Specificity:
Widely expressed. Isoform 3 is not expressed in the pituitary gland.

Post-translational modifications:
Phosphorylated by cyclin A/CDK2 and CK1. Phosphorylation probably enhances transcriptional
Self-association induces phosphorylation.
Glycosylated; contains N-acetylglucosamine, probably O-linked.
Ubiquitinated. Deubiquitinated by OTUB1.
Dimethylated by PRMT1 at Arg-260. The methylation may favor cytoplasmic localization.
Palmitoylated (isoform 3). Not biotinylated (isoform 3).
Palmitoylated by ZDHHC7 and ZDHHC21. Palmitoylation is required for plasma membrane tar
rapid intracellular signaling via ERK and AKT kinases and cAMP generation, but not for signali
the nuclear hormone receptor.

Similarity:
Belongs to the nuclear hormone receptor family. NR3 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

SWISS:
P03372

Gene ID:

2099

Database links:

Entrez Gene: 552888 Cat

Entrez Gene: 791249 Horse

Entrez Gene: 2099 Human

Entrez Gene: 13982 Mouse

Entrez Gene: 397435 Pig

Entrez Gene: 24890 Rat

Omim: 133430 Human

SwissProt: Q53AD2 Cat

SwissProt: Q9TV98 Horse

SwissProt: P03372 Human

SwissProt: P19785 Mouse

SwissProt: Q29040 Pig

SwissProt: P06211 Rat

Unigene: 208124 Human

Unigene: 463262 Mouse

Unigene: 9213 Mouse

Unigene: 10595 Rat