SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Estrogen Receptor alpha + beta antibody

SL0174R

Product Name	Estrogen Receptor alpha + beta
Chinese Name	雌激素受体 α/β 抗体
Alias	Estrogen Receptor alpha/beta; Atherosclerosis, susceptibility to, included; DKFZp686N23123; E ER; ER Beta; ER-alpha; ER-beta; ER[a]; ER[b]; Era; ERalpha; Erb; Erb2; ERbeta; ESR; ESR BE ESR1_HUMAN; ESR2; ESRA; ESRB; Estr; Estra; Estradiol Receptor alpha; Estradiol receptor; Receptor beta; ESTRB; Estrogen receptor 1 (alpha); Estrogen Receptor 1; Estrogen receptor 2 (E Estrogen Receptor 2; Estrogen receptor 2 ER beta; Estrogen receptor alpha; Estrogen receptor; E receptor beta 4; Estrogen resistance, included; HDL cholesterol, augmented response of, to horm replacement, included; Myocardial infarction, susceptibility to, included; NR3A1; NR3A2; Nucle subfamily 3 group A member 1; Nuclear receptor subfamily 3 group A member 2; OTTHUMP000 OTTHUMP00000017719; RNESTROR. Estrogen Receptor α/β; Estrogen Receptor α + β; Estro Receptor β;
Research Area	Tumour Chromatin and nuclear signals Signal transduction Endocrinopathy TumourCell biology Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Rat, (predicted: Mouse, Pig,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:50-200,IF=1:100-500,Flow-Cy （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 Estradiol Receptor alpha + beta: 201-300
Lsotype	IgG

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

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.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or d applications.
PubMed	PubMed
Product Detail	The estrogen receptor (ER) is a 66 kDa protein that mediates the actions of estrogens in estrogen tissues. It is a member of a large superfamily of nuclear hormone receptors that function as ligan transcription factors. The ER gene consists of more than 140 kb of genomic DNA divided into 8 These translate into a protein with six functionally discrete domains, labeled A through F. A seco the estrogen receptor, ER beta has recently been described. The ER is an important regulator of g differentiation in the mammary gland. Presence of ER in breast tumors indicates an increased lik response to anti estrogen (e.g. tamoxifen) therapy. **Function:** Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulati eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Ligand-dependent nuclear transactivation involves either direct homodimer binding to a palindro estrogen response element (ERE) sequence or association with other DNA-binding transcription such as AP-1/c-Jun, c-Fos, ATF-2, Sp1 and Sp3, to mediate ERE-independent signaling. Ligand induces a conformational change allowing subsequent or combinatorial association with multipr coactivator complexes through LXXLL motifs of their respective components. Mutual transrepr occurs between the estrogen receptor (ER) and NF-kappa-B in a cell-type specific manner. Decr NF-kappa-B DNA-binding activity and inhibits NF-kappa-B-mediated transcription from the IL and displace RELA/p65 and associated coregulators from the promoter. Recruited to the NF-kap response element of the CCL2 and IL8 promoters and can displace CREBBP. Present with NF-k components RELA/p65 and NFKB1/p50 on ERE sequences. Can also act synergistically with N to activate transcription involving respective recruitment adjacent response elements; the functio CREBBP. Can activate the transcriptional activity of TFF1. Also mediates membrane-initiated e signaling involving various kinase cascades. Isoform 3 is involved in activation of NOS3 and en nitric oxide production. Isoforms lacking one or several functional domains are thought to modu transcriptional activity by competitive ligand or DNA binding and/or heterodimerization with the 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 with Interacts with HEXIM1. Interacts with PBXIP1. Interaction with MUC1 is stimulated by 7 beta-

(E2) and enhances ERS1-mediated transcription. Interacts with DNTTIP2, FAM120B and UIMC with isoform 4 of TXNRD1. Interacts with MLL2. Interacts with ATAD2 and this interaction is e estradiol. Interacts with KIF18A and LDB1. Interacts with RLIM (via C-terminus). Interacts wit MACROD1. Interacts with SH2D4A and PLCG. Interaction with SH2D4A blocks binding to PI inhibits estrogen-induced cell proliferation. Interacts with DYNLL1. Interacts with CCDC62 in t of 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 sim and mediate their transcriptional synergy. Interacts with DDX5. Interacts with NCOA1; the inter seems to require a self-association of N-terminal and C-terminal regions. Interacts with ZNF366 NFKB1, RELA, SP1 and SP3. Interacts with NRIP1 (By similarity).

Subcellular Location:
Isoform 1: Nucleus. Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side minor 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 palmitoylation (Probable). At least a subset exists as a transmembrane protein with a N-terminal e domain.
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 for rapid intracellular signaling via ERK and AKT kinases and cAMP generation, but not for sig mediated by the nuclear hormone receptor.

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

SWISS:

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

P03372

Gene ID:
2099

Database links:

Entrez Gene: 2099 Human

Entrez Gene: 13982 Mouse

Entrez Gene: 24890 Rat

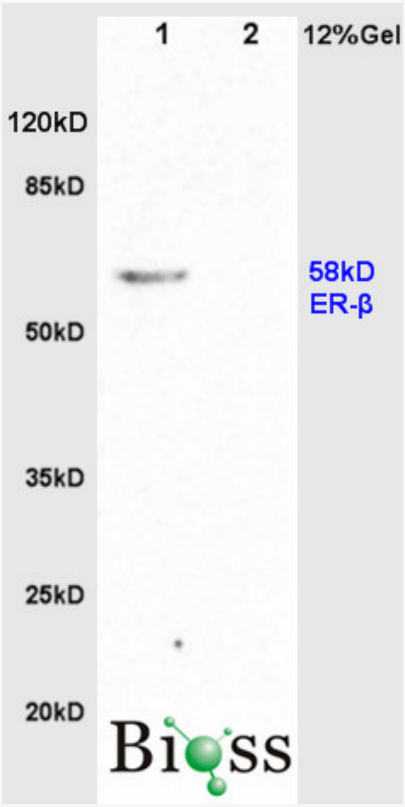
Omim: 133430 Human

SwissProt: P49884 Cow

SwissProt: P03372 Human

类固醇受体（Steroid Receptors）

Product Picture



SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Protein:

Brain(Rat) lysate at 30ug;

Colon(Rat) lysates, 30ug;

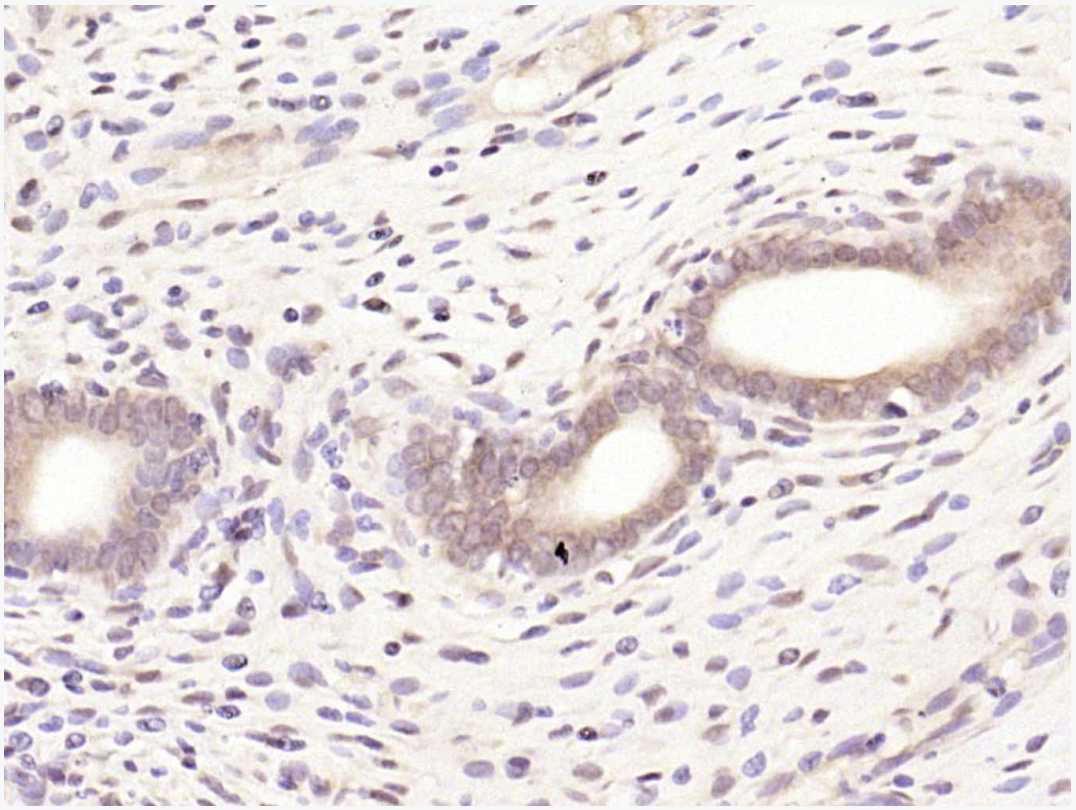
Primary: Anti-ER-alpha/beta (SL0174R) at 1:200

Secondary: HRP conjugated Goat-Anti-Rabbit IgG(bse-0295G) at 1: 3000

Predicted band size : 58kD,66kD

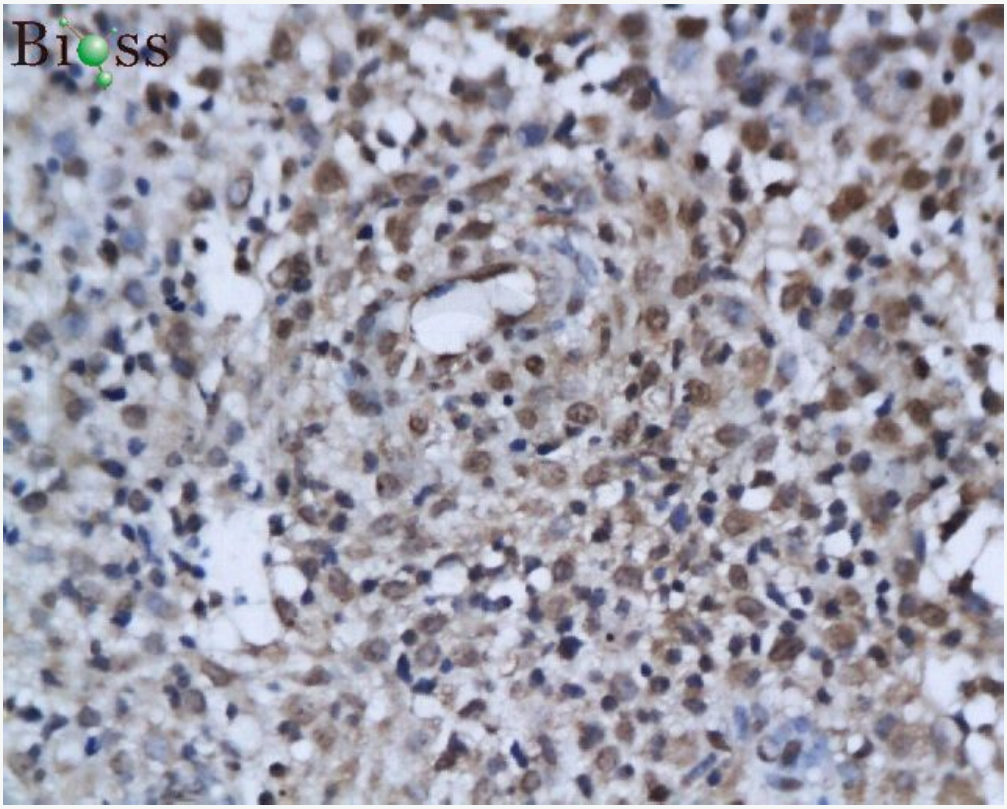
Observed band size : 58kD

ER-alpha: 66kD; ER-beta: 58kD;



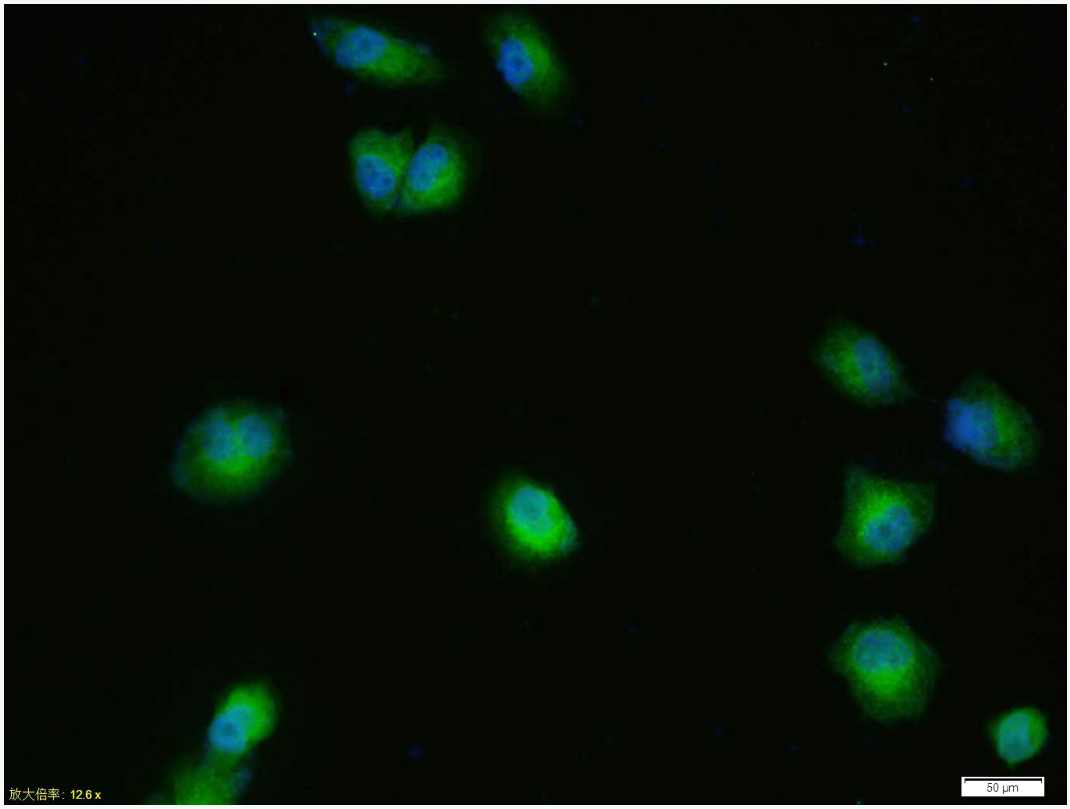
Paraformaldehyde-fixed, paraffin embedded (rat uterus); Antigen retrieval by boiling in sodiu

buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Estrogen alpha + beta) Polyclonal Antibody, Unconjugated (SL0174R) at 1:200 overnight at 4°C, follow operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Tissue/cell: human endometrium tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous p by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ fo Incubation: Anti-ER-alpha/beta Polyclonal Antibody, Unconjugated(SL0174R) 1:200, overnig followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com



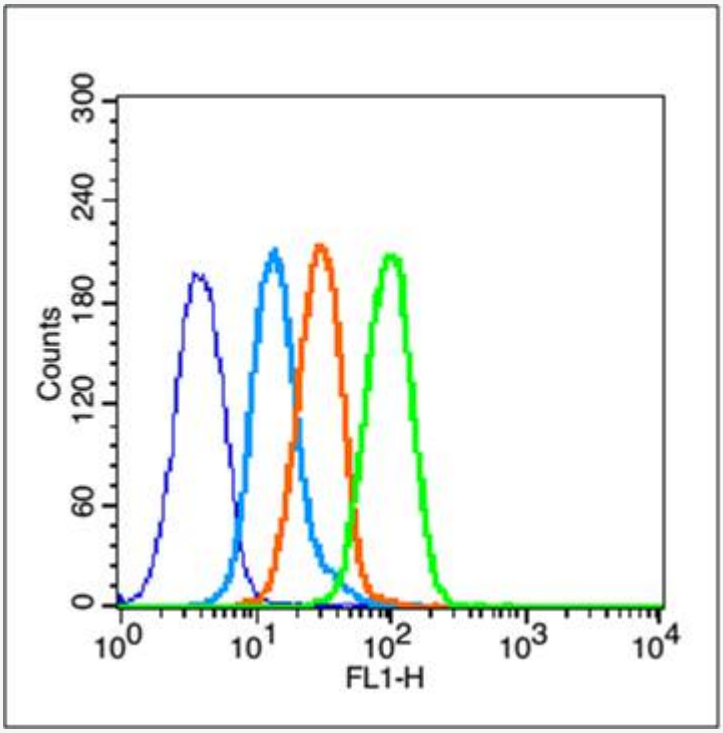
Tissue/cell: HUVEC cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for

Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (

Receptor alpha + beta) Polyclonal Antibody, Unconjugated (SL0174R) 1:100, 90 minutes at

followed by a conjugated Goat Anti-Rabbit IgG antibody (SL0295G-FITC) at 37°C for 90 mi

DAPI (blue, C02-04002) was used to stain the cell nuclei.



Blank control (blue line): MCF7 (blue).

Primary Antibody (green line): Rabbit Anti-Estrogen Receptor alpha + beta antibody (SL0174

Dilution: 5µg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC

Dilution: 1µg /test.

Protocol

The cells were fixed with 80% ethanol (Overnight at 4°C) and then permeabilized with 90% ic

methanol for 30 min on ice. Cells stained with Primary Antibody for 30 min at room temperat

cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-p

interactions followed by the antibody for 15 min at room temperature. The secondary antibody

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

40 min at room temperature. Acquisition of 20,000 events was performed.