

Rabbit Estrogen Receptor beta Polyclonal Antibody | anti-ESR2 antibody

Phospho-Estrogen Receptor beta (Ser105) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321757	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

Estrogen Receptor beta; Polyclonal Antibody; Phospho-Estrogen Receptor beta (Ser105) Antibody; ER BETA; ER-beta; Erb; ESR B; ESR BETA; ESR2; ESR2_HUMAN; ESRB; ESTRB; estrogen nuclear receptor beta variant a; estrogen nuclear receptor beta variant b; estrogen receptor 2 (ER beta); Estrogen receptor 2; estrogen receptor beta 4; Estrogen receptor beta; NR3A2; Nuclear receptor subfamily 3 group A member 2; anti-ESR2 antibody

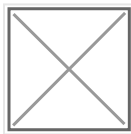
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-Estrogen Receptor-beta (Ser105) antibody detects endogenous levels of Estrogen Receptor-beta only when phosphorylated at Serine 105
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	495
Applicable Applications for anti-ESR2 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Estrogen Receptor-beta around the phosphorylation site of Serine 105
Subcellular Location	Nucleus.
Tissue Specificity	Isoform 1 is expressed in testis and ovary, and at a lower level in heart, brain, placenta, liver, skeletal muscle, spleen, thymus, prostate, colon, bone marrow, mammary gland and uterus. Also found in uterine bone, breast, and ovarian tumor cell lines, but not in colon and liver tumors. Isoform 2 is expressed in spleen, thymus, testis and ovary and at a lower level in skeletal muscle, prostate, colon, small intestine, leukocytes, bone marrow, mammary gland and uterus. Isoform 4 is found in testis. Isoform 5 is expressed in testis, and at a lower level in spleen, thymus, ovary, mammary gland and uterus. Isoform 6 is expressed in testis, placenta, skeletal muscle, spleen and leukocytes, and at a lower level in heart, lung, liver, kidney, pancreas, thymus, prostate, colon, small intestine, bone marrow, mammary gland and uterus. Not expressed in brain.
Predicted Cross Reactivity	Horse, Sheep, Dog, Chicken
Similarity	Horse (100%), Sheep (89%), Dog (100%), Chicken (86%)
Conjugation	Unconjugated
Epitope	Phospho Ser105
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



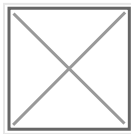
IF (Immunofluorescence)
AAA321757 staining HepG2 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



IF (Immunofluorescence)
AAA321757 staining HUVEC cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



WB (Western Blot)
Western blot analysis of Estrogen Receptor-beta phosphorylation expression in HepG2 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)
Western blot analysis of Phospho-Estrogen Receptor beta (Ser105) Antibody expression in HepG2 cells lysates. The lane on the right is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ESR2 antibody

Description: Estrogen receptor-beta (ESR2) is a member of the superfamily of nuclear receptors, which can transduce extracellular signals into transcriptional responses.

Function: Nuclear hormone receptor. Binds estrogens with an affinity similar to that of ESR1, and activates expression of reporter genes containing estrogen response elements (ERE) in an estrogen-dependent manner (PubMed:20074560). Isoform beta-cx lacks ligand binding ability and has no or only very low ere binding activity resulting in the loss of ligand-dependent transactivation ability. DNA-binding by ESR1 and ESR2 is rapidly lost at 37 degrees Celsius in the absence of ligand while in the presence of 17 beta-estradiol and 4-hydroxy-tamoxifen loss in DNA-binding at elevated temperature is more gradual.

Subunit Structure: Binds DNA as a homodimer. Can form a heterodimer with ESR1. Interacts with NCOA1, NCOA3, NCOA5 and NCOA6 coactivators, leading to a strong increase of transcription of target genes. Interacts with PELP1 and UBE1C. Isoform 2 preferentially forms a heterodimer with ESR1 rather than ESR2 and inhibits DNA-binding by ESR1. Interacts with AKAP13. Interacts with DNTTIP2. Interacts with isoform 4 of TXNRD1. Interacts with CCDC62 in the presence of estradiol/E2; this interaction seems to enhance the transcription of target genes, including cyclin-D1/CCND1 AP-1 promoter. Interacts with DNAAF4 (By similarity). Interacts with PRMT2. Interacts with CCAR2 (via N-terminus) in a ligand-independent manner.

Post-translational Modifications: Phosphorylation at Ser-87 and Ser-105 recruits NCOA1.

Similarity: Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain. Belongs to the nuclear hormone receptor family. NR3 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	94538325
NCBI GeneID	2100
NCBI Accession #	NP_001035365.1
NCBI GenBank Nucleotide #	NM_001040275.1
UniProt Accession #	Q92731; O60608; O60685; O60702; O60703; O75583; O75584; Q0MWT5; Q0MWT6; Q86Z31; A8K8K5; G3V5M5
Molecular Weight	Observed: 59 kDa Predicted: 60 kDa
NCBI Official Full Name	estrogen receptor beta isoform 2
NCBI Official Synonym Full Names	estrogen receptor 2
NCBI Official Symbol	ESR2
NCBI Official Synonym Symbols	Erb; ESRB; ESTRB; NR3A2; ER-BETA; ESR-BETA

NCBI Protein Information	estrogen receptor beta
UniProt Protein Name	Estrogen receptor beta
UniProt Gene Name	ESR2
UniProt Synonym Gene Names	ESTRB; NR3A2; ER-beta

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/estrogen-receptor-beta-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/321757>