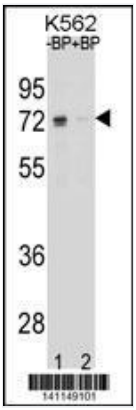
ESR1 Antibody – Rabbit Polyclonal

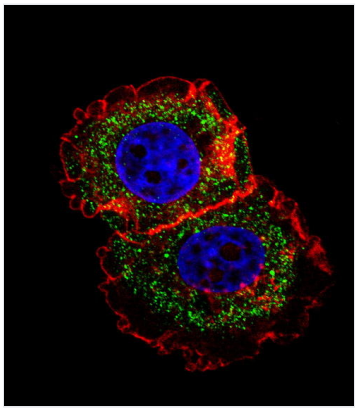
PRODUCT OVERVIEW

Product Name	ESR1, Polyclonal Antibody
Full Product Name	ESR1 isoform 1, CT (ESR1, ESR, NR3A1, Estrogen receptor, ER-alpha, Estradiol receptor, Nuclear receptor subfamily 3 group A member 1) (AP)
Product Gene Name	anti-ESR1 antibody
Product Synonym Names	ESR1; ESR; NR3A1; Estrogen receptor; ER-alpha; Estradiol receptor; Nuclear receptor subfamily 3 group A member 1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Alkaline Phosphatase (AP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	66,216 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (152011631..152424409). Location: 6q25.1
OMIM	133430
3D Structure	ModBase 3D Structure for P03372
Immunogen	ESR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 452-480 amino acids from the C-terminal region of human ESR1 isoform1.
Conjugate	AP
Note	Preservative Free
Product Categories/Family for anti-ESR1 antibody	Antibodies; Receptors; Estrogen
Applications Tested/Suitable for anti-ESR1 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-ESR1 antibody	WB: 1:100-500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-ESR1 antibody	This gene encodes an estrogen receptor, a ligand-activated transcription factor composed of several domains important for hormone binding, DNA binding, and activation of transcription. The protein localizes to the nucleus where it may form a homodimer or a heterodimer with estrogen receptor 2. Estrogen and its receptors are essential for sexual development and reproductive function, but also play a role in other tissues such as bone. Estrogen receptors are also involved in pathological processes including breast cancer, endometrial cancer, and osteoporosis. Alternative splicing results in several transcript variants, which differ in their 5' UTRs and use different promoters.

Product References and Citations for anti-ESR1 antibody	Geradts, J., et al. Cancer Invest. 28(9):969-977(2010). Hayes, D.F., et al. Clin. Pharmacol. Ther. 88(5):626-629(2010). Lupien, M., et al. Genes Dev. 24(19):2219-2227(2010). Corbo, R.M., et al. J. Gerontol. A Biol. Sci. Med. Sci. (2010). In press: Kim, S., et al. Fertil. Steril. (2010).
Other Notes	Small volumes of anti-ESR1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ESR1 purchase	MBS6296767 is an antibody targeting ESR1. Also known as ESR1 isoform 1, CT (ESR1, ESR, NR3A1, Estrogen receptor, ER-alpha, Estradiol receptor, Nuclear receptor subfamily 3 group A member 1) (AP). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-ESR1 antibody
Western blot analysis of ESR1 isoform1 Antibody (C-term) Pab pre-incubated without(lane 1) and with(lane 2) blocking peptide in K562 cell line lysate. ESR1 isoform1 Antibody (C-term)(arrow) was detected using the purified Pab.



Immunofluorescence (IF) of anti-ESR1 antibody
Fluorescent confocal image of MCF-7 cell stained with ESR1 isoform1 Antibody (C-term). MCF-7 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with ESR1 isoform1 primary antibody (1:25, 1 h at 37 degree C). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37 degree C).Cytoplasmic actin was counterstained with Alexa Fluor 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37 degree C). Nuclei were counterstained with DAPI (blue) (10 ug/ml, 10 min).ESR1 isoform1 immunoreactivity is localized to cytoplasm significantly.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ESR1. It may not necessarily be applicable to this product.

NCBI GI #	62821794
NCBI GeneID	2099
NCBI Accession #	NP_000116.2
UniProt Primary Accession #	P03372
UniProt Secondary Accession #	Q13511; Q14276; Q5T5H7; Q6MZQ9; Q9NU51; Q9UDZ7; Q9UIS7
UniProt Related Accession #	P03372
GenBank Nucleotide #	NM_000125.3
NCBI Official Full Name	estrogen receptor
NCBI Official Synonym Full Names	estrogen receptor 1
NCBI Official Symbol	ESR1
NCBI Official Synonym Symbols	ER; ESR; Era; ESRA; NR3A1
UniProt Protein Name	Estrogen receptor
UniProt Synonym Protein Names	ER-alpha; Estradiol receptor; Nuclear receptor subfamily 3 group A member 1
Protein Family	Estrogen receptor

UniProt Gene Name	ESR1
UniProt Synonym Gene Names	ESR; NR3A1; ER
UniProt Entry Name	ESR1_HUMAN
NCBI Protein Information	estrogen receptor; ER-alpha; estradiol receptor; estrogen nuclear receptor alpha; estrogen receptor alpha E1-E2-1-2; estrogen receptor alpha E1-N2-E2-1-2; estrogen receptor alpha delta 4 +49 isoform; nuclear receptor subfamily 3 group A member 1; estrogen
UniProt Comments for ESR1	ER-alpha: a nuclear hormone receptor and transcription factor. Regulates gene expression and affects cellular proliferation and differentiation in target tissues. Two splice-variant isoforms have been described. Protein type: Nuclear receptor; DNA-binding Chromosomal Location of Human Ortholog: 6q25.1 Cellular Component: nucleoplasm; Golgi apparatus; membrane; cytoplasm; plasma membrane; integral to membrane; nucleus Molecular Function: identical protein binding; estrogen receptor activity; zinc ion binding; nitric-oxide synthase regulator activity; beta-catenin binding; estrogen response element binding; transcription factor binding; steroid binding; protein binding; enzyme binding; steroid hormone receptor activity; chromatin binding; transcription factor activity Biological Process: estrogen receptor signaling pathway; positive regulation of nitric oxide biosynthetic process; uterus development; signal transduction; response to estradiol stimulus; regulation of apoptosis; positive regulation of fibroblast proliferation; elevation of cytosolic calcium ion concentration; regulation of transcription, DNA-dependent; epithelial cell development; steroid hormone receptor signaling pathway; transcription initiation from RNA polymerase II promoter; transcription, DNA-dependent; antral ovarian follicle growth; positive regulation of nitric-oxide synthase activity; negative regulation of transcription factor activity; male gonad development; androgen metabolic process; vagina development; positive regulation of retinoic acid receptor signaling pathway; negative regulation of I-kappaB kinase/NF-kappaB cascade; chromatin remodeling; response to estrogen stimulus; gene expression; positive regulation of transcription factor activity; G-protein signaling, coupled to IP3 second messenger (phospholipase C activating); positive regulation of transcription from RNA polymerase II promoter; steroid hormone mediated signaling Disease: Breast Cancer; Migraine With Or Without Aura, Susceptibility To, 1; Myocardial Infarction, Susceptibility To; Estrogen Resistance
Research Articles on ESR1	**1.** The expression of deltaEF1 is up-regulated by 17beta-estradiol (E2) in MCF-7 cells in an ER-alpha-dependent manner.
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