ESR1 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	ESR1, Blocking Peptide
Full Product Name	ESR1 Blocking Peptide
Product Gene Name	ESR1 blocking peptide
Product Synonym Names	DKFZp686N23123; ER alpha; ER; ER-alpha; Era; ESR; ESR1; ESR1_HUMAN; ESRA; Estradiol receptor; Estrogen nuclear receptor alpha; Estrogen receptor 1; Estrogen receptor alpha 3*, 4, 5, 6, 7*/822 isoform; Estrogen receptor alpha; Estrogen receptor alpha delta 3*, 4, 5, 6, 7*, 8*/941 isoform; Estrogen receptor alpha delta 3*, 4, 5, 6, 7*/819 2 isoform; Estrogen receptor alpha delta 4 +49 isoform; Estrogen receptor alpha delta 4*, 5, 6, 7*/654 isoform; Estrogen receptor alpha delta 4*, 5, 6, 7, 8*/901 isoform; Estrogen receptor alpha E1 E2 1 2; Estrogen receptor alpha E1 N2 E2 1 2; Estrogen receptor; ESTRR; NR3A1; Nuclear receptor subfamily 3 group A member 1
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	ESR1 peptide (MBS9619912) is used for blocking the activity of ESR1 antibody (MBS9602459)
Molecular Weight	66,216 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (152011631..152424409). Location: 6q25.1
OMIM	133430
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for ESR1 blocking peptide	Blocking/Control
Related Product Information for ESR1 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of ESR1 blocking peptide 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	MBS9619912 is a blocking peptide targeting ESR1.

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
NCBI Summary for ESR1	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. [provided by RefSeq, Jul 2008]

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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