

ARG66356 anti-Estrogen Receptor alpha antibody [SQab1889]

Package: 100 µl
Store at: -20°C

Summary

Product Description	Recombinant Rabbit Monoclonal antibody [SQab1889] recognizes Estrogen Receptor alpha
Tested Reactivity	Hu
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Monoclonal
Clone	SQab1889
Isotype	IgG
Target Name	Estrogen Receptor alpha
Species	Human
Immunogen	Synthetic peptide around the C-terminus of Human ER alpha.
Conjugation	Un-conjugated
Alternate Names	ESTRR; NR3A1; ESR; Estradiol receptor; Era; Estrogen receptor; ESRA; ER-alpha; Nuclear receptor subfamily 3 group A member 1; ER

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:25 - 1:50
	IHC-P	1:100 - 1:200
	WB	1:500 - 1:2000
Application Note	IHC-P: Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer (pH 9.0) * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	60 kDa	

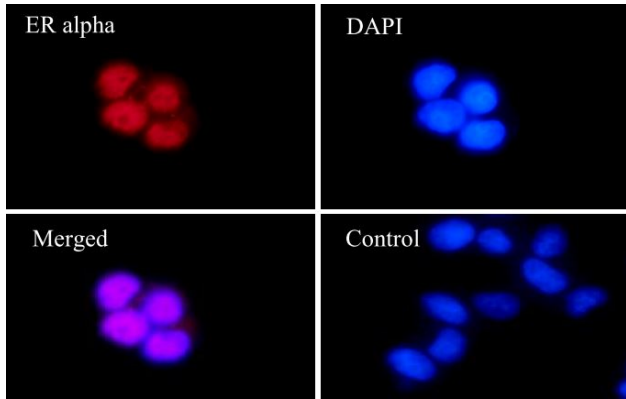
Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

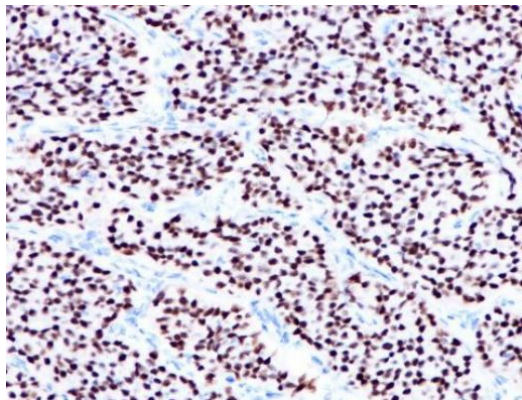
Bioinformation

Gene Symbol	ESR1
Gene Full Name	estrogen receptor 1
Background	<p>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 promoter usage and alternative splicing result in dozens of transcript variants, but the full-length nature of many of these variants has not been determined. [provided by RefSeq, Mar 2014]</p>
Function	<p>Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Ligand-dependent nuclear transactivation involves either direct homodimer binding to a palindromic estrogen response element (ERE) sequence or association with other DNA-binding transcription factors, such as AP-1/c-Jun, c-Fos, ATF-2, Sp1 and Sp3, to mediate ERE-independent signaling. Ligand binding induces a conformational change allowing subsequent or combinatorial association with multiprotein coactivator complexes through LXXLL motifs of their respective components. Mutual transrepression occurs between the estrogen receptor (ER) and NF-kappa-B in a cell-type specific manner. Decreases NF-kappa-B DNA-binding activity and inhibits NF-kappa-B-mediated transcription from the IL6 promoter and displace RELA/p65 and associated coregulators from the promoter. Recruited to the NF-kappa-B response element of the CCL2 and IL8 promoters and can displace CREBBP. Present with NF-kappa-B components RELA/p65 and NFKB1/p50 on ERE sequences. Can also act synergistically with NF-kappa-B to activate transcription involving respective recruitment adjacent response elements; the function involves CREBBP. Can activate the transcriptional activity of TFF1. Also mediates membrane-initiated estrogen signaling involving various kinase cascades. Isoform 3 is involved in activation of NOS3 and endothelial nitric oxide production. Isoforms lacking one or several functional domains are thought to modulate transcriptional activity by competitive ligand or DNA binding and/or heterodimerization with the full length receptor. Essential for MTA1-mediated transcriptional regulation of BRCA1 and BCAS3. Isoform 3 can bind to ERE and inhibit isoform 1. [UniProt]</p>
Highlight	<p>Related products: ER alpha antibodies; Anti-Rabbit IgG secondary antibodies; Related news: Cancer Pathology Markers (SQ clones)</p>
Calculated Mw	66 kDa
PTM	<p>Phosphorylated by cyclin A/CDK2 and CK1. Phosphorylation probably enhances transcriptional activity. Self-association induces phosphorylation. Dephosphorylation at Ser-118 by PPP5C inhibits its transactivation activity. Phosphorylated by LMTK3 in vitro.</p> <p>Glycosylated; contains N-acetylglucosamine, probably O-linked.</p> <p>Ubiquitinated; regulated by LATS1 via DCAF1 it leads to ESR1 proteasomal degradation (PubMed:21602804, PubMed:28068668). Deubiquitinated by OTUB1 (PubMed:19383985).</p> <p>Dimethylated by PRMT1 at Arg-260. The methylation may favor cytoplasmic localization.</p> <p>Palmitoylated (isoform 3). Not biotinylated (isoform 3).</p> <p>Palmitoylated by ZDHHC7 and ZDHHC21. Palmitoylation is required for plasma membrane targeting and for rapid intracellular signaling via ERK and AKT kinases and cAMP generation, but not for signaling mediated by the nuclear hormone receptor. [UniProt]</p>



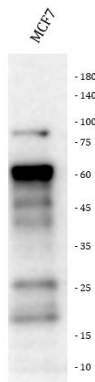
ARG66356 anti-Estrogen Receptor alpha antibody [SQab1889] ICC/IF image

Immunofluorescence: MCF-7 cells fixed with 4% paraformaldehyde for 30 min at RT, permeabilized with 0.1% Triton X-100 for 10 min at RT then blocked with 10% Goat serum for half an hour at room temperature. Samples were stained with ARG66356 anti-Estrogen Receptor alpha antibody [SQab1889] (red) at 1:50 and 4°C. DAPI (blue) was used as the nuclear counter stain. Control: PBS and secondary antibody.



ARG66356 anti-Estrogen Receptor alpha antibody [SQab1889] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded ER+ breast cancer tissue stained with ARG66356 anti-Estrogen Receptor alpha antibody [SQab1889] at 1:100 dilution. Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer (pH 9.0).



ARG66356 anti-Estrogen Receptor alpha antibody [SQab1889] WB image (Customer review)

Western blot: MCF7 stained with ARG66356 anti-Estrogen Receptor alpha antibody [SQab1889] at 1:500 dilution.