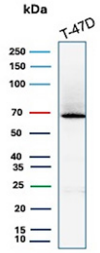
ER alpha Antibody Rabbit Monoclonal / Estrogen Receptor alpha [clone ESR1/7444R] (V5169)

Catalog No.	Formulation	Size
V5169-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5169-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5169SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

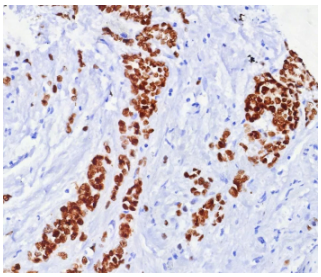
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	ESR1/7444R
Purity	Protein A/G affinity
UniProt	P03372
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This ER alpha Antibody Rabbit Monoclonal is available for research use only.



ER alpha Antibody Rabbit Monoclonal T-47D WB. Western blot analysis of human T-47D cell lysate using ER alpha antibody (clone ESR1/7444R) detects a band at approximately 65-70 kDa, consistent with the predicted molecular weight of Estrogen receptor alpha (ESR1), a nuclear hormone receptor expressed in hormone-responsive breast cancer cells; detection was performed with clone ESR1/7444R.



ER alpha Antibody Rabbit Monoclonal Breast Cancer IHC. Immunohistochemistry of ER alpha Antibody in human breast carcinoma. Formalin-fixed, paraffin-embedded human breast carcinoma tissue shows strong nuclear HRP-DAB brown staining in malignant epithelial cells, while adjacent stromal components are largely negative. Staining was performed using rabbit monoclonal clone ESR1/7444R following heat-induced epitope retrieval by boiling tissue sections in pH 9 10 mM Tris buffer with 1 mM EDTA for 20 min and cooling prior to antibody incubation. The nuclear staining pattern is consistent with expected Estrogen Receptor alpha / ESR1 expression in hormone receptor-positive breast carcinoma cells.

Description

ER alpha Antibody Rabbit Monoclonal clone ESR1/7444R recognizes Estrogen Receptor alpha, a ligand-activated nuclear transcription factor encoded by the ESR1 gene on chromosome 6q25.1. Estrogen Receptor alpha, also commonly referred to as ER alpha, ER-A, or ESR1 antibody target protein, belongs to the nuclear receptor superfamily and plays a central role in regulating gene expression in response to estrogen signaling. ER alpha Antibody Rabbit Monoclonal Clone ESR1/7444R targets ER alpha protein for research applications involving hormone receptor biology and endocrine-related disease investigation.

Estrogen Receptor alpha contains a conserved DNA-binding domain composed of zinc finger motifs, a ligand-binding domain responsible for estrogen recognition, and activation function domains that coordinate transcriptional regulation. Upon binding its ligand, ESR1 undergoes structural rearrangement that promotes receptor dimerization and nuclear localization. The activated receptor binds estrogen response elements within promoter regions of target genes and recruits transcriptional coactivators or corepressors, thereby modulating gene networks involved in cellular proliferation, differentiation, and survival.

ER alpha expression is most prominent in breast epithelium, endometrium, ovary, and additional hormone-responsive tissues. In oncology research, ESR1 expression is a widely studied biomarker in breast carcinoma and other estrogen-dependent malignancies. Alterations in ESR1 signaling, including gene amplification, splice variants, or activating mutations, can influence tumor growth behavior and endocrine responsiveness. Beyond oncology, ER alpha also contributes to bone metabolism, cardiovascular regulation, metabolic balance, and neuroendocrine signaling pathways.

ER alpha Antibody Rabbit Monoclonal clone ESR1/7444R enables investigation of ESR1 localization and expression in cellular and tissue-based research models. By targeting Estrogen Receptor alpha protein, this antibody supports studies focused on estrogen-driven transcriptional programs and hormone-dependent disease mechanisms. Detection of ER alpha remains fundamental to research exploring endocrine regulation in normal physiology and pathological contexts.

For comprehensive detection of Estrogen receptor alpha across hormone signaling and breast cancer studies, see our Estrogen Receptor alpha antibody (clone ESR1/3557).

Application Notes

Optimal dilution of the ER alpha Antibody Rabbit Monoclonal should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 495-595) from the human protein was used as the immunogen for the ER alpha antibody rabbit monoclonal ESR1/7444R.

Storage

Aliquot the ER alpha antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

ESR1 antibody, Estrogen Receptor alpha antibody

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