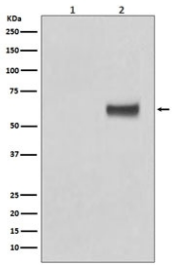
Phospho-ER alpha (pS118) Antibody / Hormone-Induced Activation Marker Antibody [clone EIG-5] (RQ5023)

Catalog No.	Formulation	Size
RQ5023	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

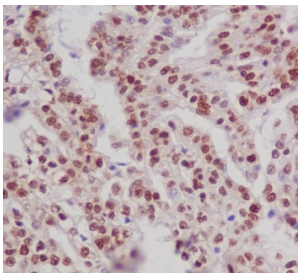
Recombinant RABBIT MONOCLONAL

Bulk quote request

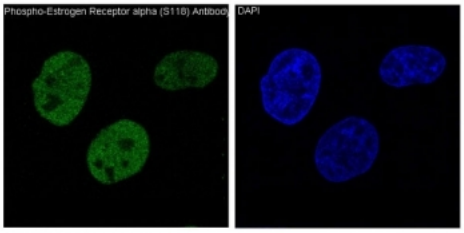
Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	EIG-5
Purity	Affinity purified
UniProt	P03372
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry (FFPE) : 1:50-1:200 Immunofluorescence : 1:50-1:200
Limitations	This Phospho-ER alpha (pS118) Antibody / Hormone-Induced Activation Marker Antibody is available for research use only.



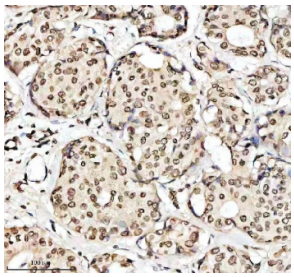
Phospho-ER alpha (pS118) Antibody MCF7 WB. Western blot analysis of human MCF7 cell lysates (lane 1: untreated, lane 2: beta-estradiol and EGF treated) using phospho-ER alpha (pS118) antibody detects a band at approximately 65-70 kDa, consistent with the predicted molecular weight of Estrogen receptor alpha (ESR1), with increased signal in treated cells reflecting hormone- and growth factor-induced phosphorylation; clone EIG-5 was used for detection.



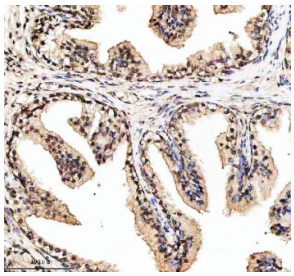
Phospho-ER alpha (pS118) Antibody Kidney Tissue IHC. Immunohistochemistry of FFPE human kidney tissue using phospho-ER alpha (pS118) antibody shows HRP-DAB brown nuclear staining in epithelial cells, consistent with phosphorylation at serine 118 and activation of ESR1 signaling, while surrounding stromal elements display lower background; detection was performed with clone EIG-5. HIER: boil tissue sections in pH6 citrate buffer for 20 min and allow to cool before testing.



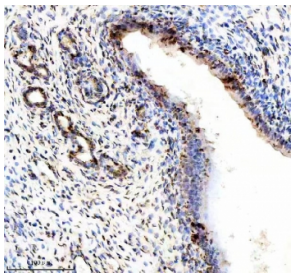
Phospho-ER alpha (pS118) Antibody Kidney Tissue IHC. Immunohistochemistry of FFPE human kidney tissue using phospho-ER alpha (pS118) antibody shows HRP-DAB brown nuclear staining in epithelial cells, consistent with phosphorylation at serine 118 and activation of ESR1 signaling, while surrounding stromal elements display lower background; detection was performed with clone EIG-5. HIER: boil tissue sections in pH6 citrate buffer for 20 min and allow to cool before testing.



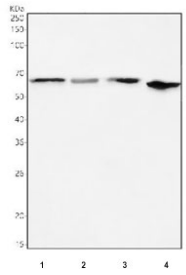
Phospho-ER alpha (pS118) Antibody Breast Cancer Tissue IHC. Immunohistochemistry of FFPE human breast carcinoma tissue using phospho-ER alpha (pS118) antibody shows prominent HRP-DAB brown nuclear staining in tumor epithelial cells, consistent with hormone- and growth factor-induced phosphorylation at serine 118 and active ESR1 signaling, while surrounding stromal cells display lower background; detection was performed with clone EIG-5. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Phospho-ER alpha (pS118) Antibody Prostatic Hyperplasia IHC. Immunohistochemistry of FFPE human prostatic hyperplasia tissue using phospho-ER alpha (pS118) antibody shows HRP-DAB brown nuclear staining in glandular epithelial cells, consistent with phosphorylation at serine 118 and hormonally regulated ESR1 activation, while surrounding stromal elements display lower background; detection was performed with clone EIG-5. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Phospho-ER alpha (pS118) Antibody Rat Uterus IHC. Immunohistochemistry of FFPE rat uterus tissue using phospho-ER alpha (pS118) antibody demonstrates HRP-DAB brown nuclear staining in uterine epithelial and stromal cells, consistent with estrogen-responsive phosphorylation at serine 118 and active ESR1 signaling in reproductive tissue, while background staining remains minimal; detection was performed with clone EIG-5. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Phospho-ER alpha (pS118) Antibody Mouse Rat WB. Western blot testing of 1) rat brain, 2) rat C6, 3) mouse brain and 4) mouse Neuro-2a cell lysate with phospho-ER alpha antibody. Predicted molecular weight ~66 kDa.

Description

Estrogen receptor alpha (ESR1) is a ligand-activated nuclear hormone receptor that regulates gene transcription in

response to estrogen signaling and plays a central role in the growth and differentiation of hormone-responsive tissues. ESR1 activity is tightly controlled by post-translational modifications, including phosphorylation at multiple regulatory residues that influence receptor stability, localization, and transcriptional output. Among these, serine 118 (S118) is one of the most well-characterized phosphorylation sites and is strongly associated with transcriptional activation of the receptor.

Phospho-ER alpha (pS118) antibody, also referred to as ESR1 pS118 antibody and phosphorylated Estrogen receptor alpha antibody in the literature, recognizes ESR1 specifically when phosphorylated at serine 118. This modification can be induced by estrogen binding as well as by growth factor signaling pathways such as MAPK, linking extracellular cues to nuclear transcriptional responses. Phosphorylation at S118 enhances ESR1 transcriptional activity and promotes expression of estrogen-responsive genes, making it a key marker of receptor activation in both normal physiology and disease.

This Phospho-ER alpha (pS118) Antibody / Hormone-Induced Activation Marker Antibody (clone EIG-5) is uniquely positioned for studies of signaling dynamics and hormone responsiveness. In cellular systems, S118 phosphorylation is rapidly increased following treatment with beta-estradiol or growth factors such as EGF, reflecting convergence of endocrine and mitogenic signaling pathways. This inducible phosphorylation event provides a valuable readout for pathway activation and receptor engagement, particularly in breast cancer models where ESR1 signaling drives tumor growth and therapeutic response.

In tissue-based analyses, phosphorylated ESR1 is typically detected as nuclear staining in epithelial and tumor cells, consistent with its role as a transcription factor. Variation in phospho-ER alpha levels can reflect differences in hormonal status, growth factor signaling, and treatment response, providing insight into tumor biology and pathway activation states. In western blot analysis, phospho-ER alpha is detected at an apparent molecular weight consistent with total ESR1, with increased signal observed under conditions that promote receptor activation.

Clone EIG-5 is a recombinant rabbit monoclonal antibody designed to detect ESR1 phosphorylated at serine 118 with specificity for the modified form of the protein. A phospho-ER alpha antibody is suitable for detecting activation-dependent changes in ESR1 signaling in studies of hormone receptor biology, breast cancer research, and signal transduction.

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 Phospho-ER alpha (pS118) Antibody / Hormone-Induced Activation Marker Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human ER alpha / ESR1 (surrounding pS118) was used as the immunogen for the Phospho-ER alpha (pS118) Antibody.

Storage

Store the Phospho-ER alpha (pS118) Antibody at -20oC.

Alternate Names

Phospho ER alpha S118 antibody, ESR1 pS118 antibody, Phosphorylated Estrogen receptor alpha antibody, ER alpha phospho S118 antibody, ESR1 activation marker antibody