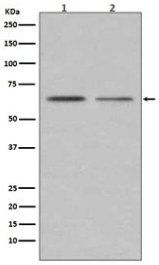
ER alpha Antibody / Estrogen receptor alpha [clone IE-5] (RQ5022)

Catalog No.	Formulation	Size
RQ5022	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

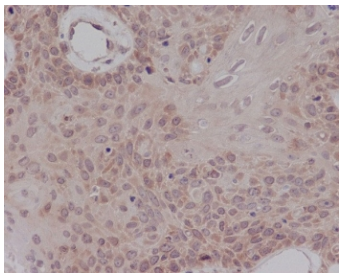
Recombinant RABBIT MONOCLONAL

Bulk quote request

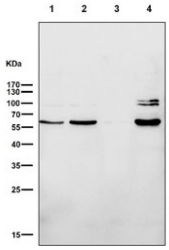
Availability	1-2 weeks
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	IE-5
Purity	Affinity purified
UniProt	P03372
Applications	Western blot: 1:500-1:2000 Immunohistochemistry (FFPE): 1:50-1:100 Immunofluorescence: 1:50-1:100
Limitations	This ER alpha antibody is available for research use only.



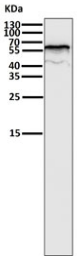
ER alpha Antibody Breast Cancer Cell Line WB. Western blot testing of human 1) MCF7 and 2) T-47D cell lysate with ER alpha antibody. Predicted molecular weight ~66 kDa.



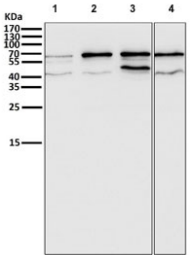
ER alpha Antibody Cervical Carcinoma IHC. Immunohistochemistry staining of FFPE human cervical carcinoma with ER alpha antibody. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min and allow to cool before testing.



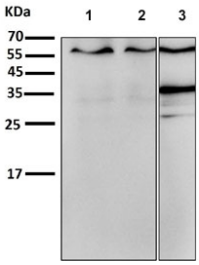
Western blot testing of human 1) HepG2, 2) SW480, 3) SK-OV-3 and 4) MCF7 cell lysate with ER alpha antibody. Predicted molecular weight ~66 kDa.



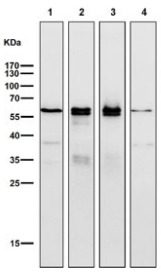
Western blot testing of human K562 cell lysate with ER alpha antibody. Predicted molecular weight ~66 kDa.



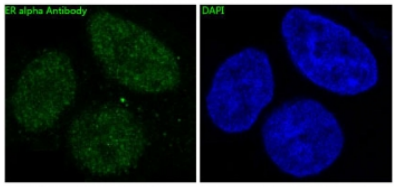
Western blot testing of human 1) 293, 2) A375, 3) MCF7 and 4) Daudi cell lysate with ER alpha antibody. Predicted molecular weight ~66 kDa.



Western blot testing of 1) human HeLa, 2) human A375 and 3) rat C6 cell lysate with ER alpha antibody. Predicted molecular weight ~66 kDa.



ER alpha Antibody Mouse Rat WB. Western blot testing of 1) mouse testis, 2) mouse uterus, 3) mouse ovary and 4) rat testis tissue lysate with ER alpha antibody. Predicted molecular weight ~66 kDa.



ER alpha Antibody MCF7 IF. Immunofluorescent staining of FFPE human MCF7 cells with ER alpha antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.

Description

ER alpha antibody targets Estrogen receptor alpha, a ligand-responsive nuclear regulatory protein that mediates cellular responses to estrogen signaling. ER alpha represents the functionally dominant estrogen receptor isoform in many hormone-responsive tissues and acts as a transcriptional regulator that integrates hormonal cues with gene expression programs controlling cellular growth, differentiation, and tissue organization. Detection of ER alpha is therefore central to studies of estrogen-driven biological processes.

ER alpha localizes primarily to the nucleus, where it regulates transcription through direct interaction with estrogen response elements as well as through tethering mechanisms involving other transcription factors. In addition to classical genomic signaling, ER alpha participates in dynamic regulatory networks that influence chromatin structure and transcriptional responsiveness. ER alpha antibody reagents are useful for examining nuclear receptor localization and estrogen-dependent transcriptional regulation in tissue-based research systems.

Functionally, ER alpha activity shapes gene expression programs involved in epithelial cell differentiation, reproductive tissue maintenance, and hormone-regulated metabolic processes. Its regulatory influence is particularly prominent in breast, uterine, and ovarian tissues, where estrogen signaling drives coordinated transcriptional responses. ER alpha antibody detection supports investigations into hormone receptor biology, transcriptional regulation, and estrogen-responsive cellular states.

Alterations in ER alpha expression or regulatory activity are associated with disease-related changes in hormone responsiveness. Dysregulated ER alpha signaling contributes to abnormal transcriptional programs that affect cellular proliferation and differentiation, making ER alpha a key research focus in hormone-driven disease models. Changes in ER alpha expression patterns have also been linked to shifts in cellular sensitivity to estrogen signaling cues.

ER alpha antibody reagents are suitable for detecting nuclear Estrogen receptor alpha expression in research applications. These antibodies support studies focused on estrogen signaling pathways, transcriptional regulation, hormone receptor dynamics, and disease-associated alterations in estrogen-responsive gene expression.

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 should be determined by the researcher.

Immunogen

A synthetic peptide specific to human ER alpha / ESR1 was used as the immunogen for the ER alpha antibody.

Storage

Store the ER alpha antibody at -20oC.

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