

Estrogen Receptor α (PTR2124) Mouse mAb

CatalogNo: YM4446

Key Features

Host Species

Mouse

ReactivityHuman,

ApplicationsIHC,WB,IF,ELISA

MW

66kD (Calculated)
67kD (Observed)

IsotypeIgG2b,Kappa

Recommended Dilution Ratios

IHC 1:200-1000 WB 1:500-2000 IF 1:100-500

ELISA 1:1000-5000

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Formulation PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality Monoclonal

Clone Number PTR2124

Immunogen Information

Immunogen Synthesized peptide derived from human Estrogen Receptor α. AA range: 450-595

Specificity This antibody detects endogenous levels of Estrogen Receptor α protein.

Target Information

Gene name

ESR1 ESR NR3A1

Protein Name

Estrogen receptor (ER) (ER-alpha) (Estradiol receptor) (Nuclear receptor subfamily 3 group A member 1)

Organism	Gene ID	UniProt ID
Human	2099;	<u>P03372;</u>
Mouse	<u>13982;</u>	<u>P19785;</u>
Rat	<u>24890;</u>	<u>P06211;</u>

Cellular Localization

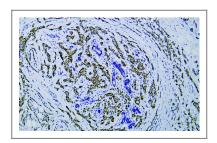
Nuclear

Tissue specificity Widely expressed (PubMed:10970861). Not expressed in the pituitary gland (PubMed:10970861).; [Isoform 3]: Widely expressed, however not expressed in the pituitary gland.

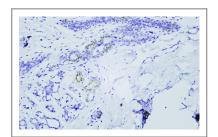
Function

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-Bmediated 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. Essential for MTA1-mediated transcriptional regulation of BRCA1 and BCAS3 .; [Isoform 3]: 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. Binds to ERE and inhibits isoform 1.

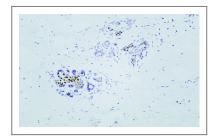
Validation Data



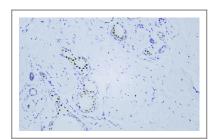
Human breast carcinoma tissue was stained with Anti-Estrogen Receptor α (PTR2124) Antibody



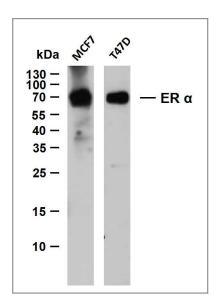
Human breast tissue was stained with Anti-Estrogen Receptor α (PTR2124) Antibody



Human breast tissue was stained with Anti-Estrogen Receptor α (PTR2124) Antibody



Human breast tissue was stained with Anti-Estrogen Receptor α (PTR2124) Antibody



Various whole cell lysates were separated by 12% SDS-PAGE, and the membrane was blotted with anti-ER α (PTR2124)antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: MCF7 Lane 2: T47D

| Contact information

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Please scan the QR code to access additional product information:

Estrogen Receptor α (PTR2124) Mouse mAb

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