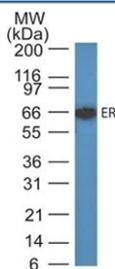


## Estrogen Receptor Antibody (alpha) [clone ER505] (V2112)

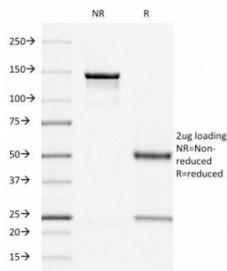
Catalog No.	Formulation	Size
V2112-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2112-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2112SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG1, kappa
<b>Clone Name</b>	ER505
<b>Purity</b>	Protein G affinity chromatography
<b>Gene ID</b>	2099
<b>Localization</b>	Nuclear
<b>Applications</b>	Western Blot : 1-2ug/ml
<b>Limitations</b>	This <b>Estrogen Receptor antibody</b> is available for research use only.



Western blot testing of human MCF7 cell lysate with Estrogen Receptor antibody clone ER505. Predicted molecular weight ~67 kDa.



SDS-PAGE analysis of purified, BSA-free Estrogen Receptor antibody (clone ER505) as confirmation of integrity and purity.

## Description

Estrogen Receptor Antibody Clone ER505 recognizes Estrogen Receptor alpha, a ligand-activated nuclear transcription factor encoded by the ESR1 gene on chromosome 6q25.1. Estrogen Receptor alpha, commonly referred to as ER alpha or ESR1, is a member of the nuclear receptor superfamily that regulates gene expression in response to estrogen signaling. Estrogen Receptor Antibody Clone ER505 has been widely utilized in peer-reviewed research literature, making this clone a well-established reagent for studies of hormone receptor biology.

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 regions that coordinate transcriptional regulation. Upon estrogen binding, ESR1 undergoes conformational changes that promote 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 transcriptional programs governing cellular proliferation, differentiation, and survival.

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

Estrogen Receptor Antibody Clone ER505 has been referenced across numerous independent studies, supporting its recognition within the research community. The clone-based differentiation provides investigators with a reagent that has demonstrated utility in diverse experimental contexts. By targeting Estrogen Receptor alpha protein, this antibody supports research focused on estrogen-driven transcriptional regulation and hormone-dependent disease mechanisms.

## Application Notes

Titration of the Estrogen Receptor antibody may be required for optimal performance.

## Immunogen

Recombinant human Estrogen Receptor alpha protein (aa 2-185) was used as the immunogen for this antibody clone ER505.

## Storage

Store the Estrogen Receptor antibody at 2-8°C (with azide) or aliquot and store at -20°C or colder (without azide).

## References (2)

