

Product Specification Sheet

Monoclonal Anti-Estrogen Receptor α

Cat. ERA11-M

Mouse Monoclonal Anti-ER α

SIZE: 100 ug

Estrogens, produced by ovaries and testis, affect growth and differentiation of many target tissues. Estrogens bind to the intracellular proteins known as estrogen receptors (ER). Estrogen receptor is a member of the super family of nuclear receptor that show a similar structure and mode of action. Once bound by their ligand, ER undergoes a conformational change to a form that can specifically binds to its target genes and later their transcription. Structurally, nuclear receptors have been divided into six distinct domains termed A-F: The hypervariable N-terminal transactivation domain, the DNA-binding, dimerization, and nuclear localization conserved region C, and the ligand binding conserved region E. A great deal of knowledge has been obtained from the cloning, structure and functional studies of previously known ER (now called **ER-alpha** or **ER-a**).

The ER-alpha, initially cloned from uterus, is highly homologous to the ER α from mouse, human, and chicken. Recently, another form of the ER, termed **ERb1**, has been cloned from rat and human tissue. Both ER α and ERb1 binds to common agonists and antagonists with more or less overlapping specificity.

Source of Antigen and Antibodies

Antigen	Purified calf uterine ER alpha protein (protein accession #P03372); epitope location ~ 125-165 aa region (modulating domain before the DNA-binding domain)
Ab Host/type	Mouse, monoclonal IgG1, Culture supt (cat #ERA11-M)
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies

Mouse monoclonal antibody is supplied as concentrated hybridoma medium containing ~100 ug antibody/250 ul medium containing 0.05% sodium azide. Store at 4oC for 6-12 months or -20oC for 1-2 years. Store frozen in suitable aliquots to avoid freeze and thaw.

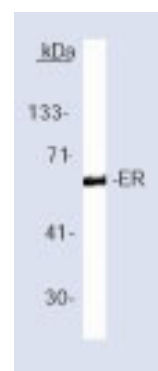
Recommended Usage

Western Blotting (1:100-500 using chemiluminescent technique). The antibody recognizes a band of approx. 67 kDa in nuclear extracts of MCF-7 cells. (1).

ELISA (1:100K; using 50-100 ng control antigen/well).

Immunoprecipitation We recommend 10 ul antibody per 500 ug of MCF-7 nuclear extracts. Other cell lines should be tested and optimized. Use protein G for IP.

Histochemistry & Immunofluorescence: We recommend 5-10 ul/ml antibody to detect nuclear staining of the receptor.



Western blot of MCF-7 cell extracts using ERA11-M (1:250).

Specificity & Cross-reactivity

This antibody recognizes ER α from human, bovine, rat, and mouse. No crossreactivity is seen with ER-beta. Antibody crossreactivity antibodies in other species is not established.

General References: Evans RM (1988) Science 240, 889-895. Green S et al (1986) Nature 324, 615-617.

(2) Citations of ADI's Antibodies (see web site for updated list)

Javeshghani D, 2003, Hypertension, Jul 2003 in press, WB
Tan KP 2004, Experimental Biology and Medicine, 229: 147 – 157, IHC

*This product is for in vitro research use only.

Related material available from ADI

Anti-ER alpha ; Beta 1 and Beta 2)

Western Blot recycling kit (Use the same blot to probe with multiple antibodies) **recycle blot at room temp in 5-10 min; No mercaptoethanol or heating required).**

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