ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Human Anti-Estrogen Receptor α 36 (ER-Alpha 36 isoform) antibodies

Cat. ERA361-A	Rabbit Anti-Human ER-Alpha 36 peptide IgG, aff pure	**SIZE**: 100 ug
Cat. ERA361-P	Human ER-Alpha 36 control/blocking peptide	**SIZE**: 100 ug

Estrogens, produced by ovaries and testis, affect growth and differentiation of many target tissues. These include the male and female reproductive tissues (mammary gland, uterus, ovary, and prostate). Estrogens have also been implicated in the physiology of the bone, cardiovascular tissues, and the brain. 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 **ERa**).

hER-α36 is an alternatively spliced variant generated from a promoter located in the first intron of the hER-α66 gene. Terminus. It possesses an extra, unique 27-aa domain to replace the last 138 aa encoded by exons 7 and 8 of the hER-α66. It differs from hER-α66 by lacking both transcriptional activation domains (AF-1 and AF-2), but it retains the DNA-binding domain ,partial dimerization and ligand-binding domains and three potential myristoylation sites located near the N gene. hER-α36 may be an important marker to direct therapy in human breast cancers. The predicted properties of hER-α36 suggest that it is a dominant negative effector of estrogen-stimulated activation of estrogen responsive genes through hER-α66.

Source of Antigen and Antibodies

Antigen	A 19-aa synthetic peptide from the N-terminus of human estrogen receptor, alpha protein (protein accession # P03372 ref 1).
Ab Host/type	Rabbit, polyclonal, aff pure IgG (**cat #ERA361-A**) purified over antigen-agarose column
2-ab	**Goat Anti-rabbit IgG-HRP** cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder

Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Recommended Usage

Western Blotting (1:100-2000 using chemiluminescent technique).

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

Histochemistry & **Immunofluorescence**: not tested. We recommend 5-10 ul/ml antibody to detect nuclear staining of the receptor.

Specificity & Cross-reactivity

Human ER-alpha 36 isoform antigenic peptide (ERA361-P) is unique to the alpha form and this sequence is not found in other ER-isoforms (ER-alpha, Beta 1 or Beta 2). 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.
ZhaoYi Wang PNAS 2006 vol. 103 no. 24 9063-9068

*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**).

ERA361-A 120322A

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