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ER-beta1 (Estrogen Receptor beta-1) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone ESR2/686]
Catalog # AH11198

Product Information

Application	WB, IHC, IF, FC
Primary Accession	Q92731
Other Accession	2100, 660607
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a
Clone Names	ESR2/686
Calculated MW	59216

Additional Information

Gene ID	2100
Other Names	Estrogen receptor beta, ER-beta, Nuclear receptor subfamily 3 group A member 2, ESR2, ESTRB, NR3A2
Application Note	WB~~1:1000 IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	ER-beta1 (Estrogen Receptor beta-1) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ESR2
Synonyms	ESTRB, NR3A2
Function	Nuclear hormone receptor. Binds estrogens with an affinity similar to that of ESR1/ER-alpha, and activates expression of reporter genes containing estrogen response elements (ERE) in an estrogen- dependent manner (PubMed:20074560).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00407, ECO:0000269|PubMed:19126643, ECO:0000269|PubMed:20074560}
Tissue Location	[Isoform 1]: Expressed in testis and ovary, and at a lower level in heart, brain, placenta, liver, skeletal muscle, spleen, thymus, prostate, colon, bone marrow,

mammary gland and uterus Also found in uterine bone, breast, and ovarian tumor cell lines, but not in colon and liver tumors. [Isoform 4]: Expressed in the testis. [Isoform 6]: Expressed in testis, placenta, skeletal muscle, spleen and leukocytes, and at a lower level in heart, lung, liver, kidney, pancreas, thymus, prostate, colon, small intestine, bone marrow, mammary gland and uterus. Not expressed in brain.

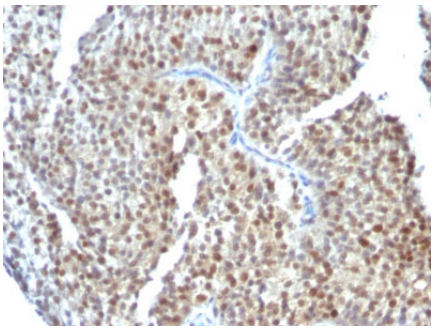
Background

Estrogen receptors (ER) are members of the steroid/thyroid hormone receptor superfamily of ligand-activated transcription factors. Estrogen receptors, including ER-alpha and ER-beta, contain DNA binding and ligand binding domains and are critically involved in regulating the normal function of reproductive tissues. They are located in the nucleus, though some estrogen receptors associate with the cell surface membrane and can be rapidly activated by exposure of cells to estrogen. ER-alpha and ER-beta are differentially activated by various ligands. Receptor-ligand interactions trigger a cascade of events, including dissociation from heat shock proteins, receptor dimerization, phosphorylation and the association of the hormone activated receptor with specific regulatory elements in target genes. Evidence suggests that ER-alpha and ER-beta may be regulated by distinct mechanisms even though they share many functional characteristics.

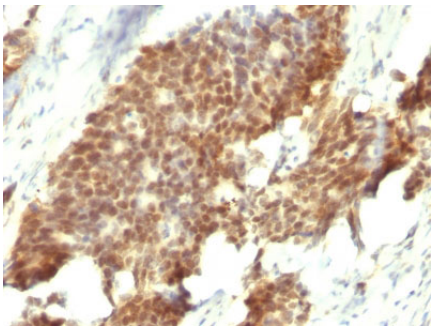
References

Skliris GP et. al. J Pathol 2002;197:155-62. |

Images

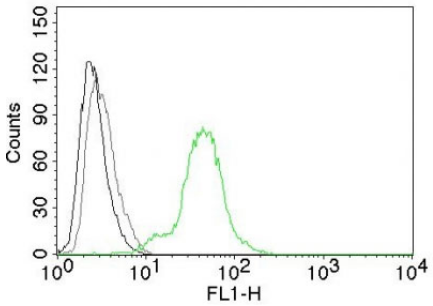


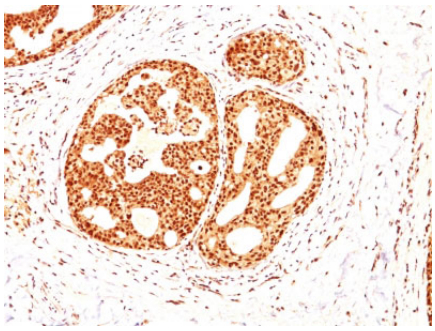
Formalin-fixed, paraffin-embedded human Bladder Carcinoma stained with ER-beta1 Monoclonal Antibody (ESR2/686).



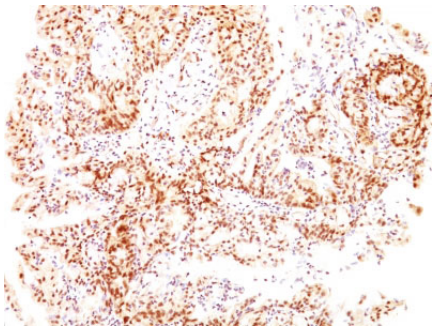
Formalin-fixed, paraffin-embedded human Gastric Carcinoma stained with ER-beta1 Monoclonal Antibody (ESR2/686).

Flow Cytometry of human ER beta on BT474 Cells. Black: Cells alone; Grey: Isotype Control; Green: AF488-labeled ER beta1 Monoclonal Antibody (ESR2/686).

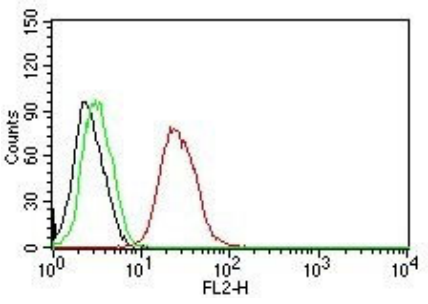




Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with ER-beta1 Monoclonal Antibody (ESR2/686).



Formalin-fixed, paraffin-embedded human Ovarian Carcinoma stained with ER-beta1 Monoclonal Antibody (ESR2/686).



Flow Cytometry for human ER-beta on MCF-7 Cells. Black: Cells alone; Green: Isotype Control; Red: PE-labeled ER-beta1 Monoclonal Antibody (ESR2/686).