

**Estrogen Receptor  $\beta$  (PT0318) mouse mAb**

<b>Catalog No :</b>	YM4163
<b>Reactivity :</b>	Human;
<b>Applications :</b>	WB;IF;ELISA
<b>Target :</b>	Estrogen Receptor- $\beta$
<b>Fields :</b>	>>Endocrine resistance;>>Estrogen signaling pathway;>>Prolactin signaling pathway;>>GnRH secretion;>>Pathways in cancer;>>Chemical carcinogenesis - receptor activation;>>Breast cancer
<b>Gene Name :</b>	ESR2 ESTRB NR3A2
<b>Protein Name :</b>	Estrogen Receptor $\beta$
<b>Human Gene Id :</b>	2100
<b>Human Swiss Prot No :</b>	Q92731
<b>Immunogen :</b>	Synthesized peptide derived from human Estrogen Receptor $\beta$ AA range: 400-530
<b>Specificity :</b>	This antibody detects endogenous levels of Estrogen Receptor $\beta$ protein.
<b>Formulation :</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source :</b>	Mouse, Monoclonal/IgG2b, kappa
<b>Dilution :</b>	WB 1:500-2000. IF 1:100-500. ELISA 1:1000-5000
<b>Purification :</b>	Protein G
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	59kD
<b>Observed Band :</b>	59kD

**Background :**

This gene encodes a member of the family of estrogen receptors and superfamily of nuclear receptor transcription factors. The gene product contains an N-terminal DNA binding domain and C-terminal ligand binding domain and is localized to the nucleus, cytoplasm, and mitochondria. Upon binding to 17beta-estradiol or related ligands, the encoded protein forms homo- or hetero-dimers that interact with specific DNA sequences to activate transcription. Some isoforms dominantly inhibit the activity of other estrogen receptor family members. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of some of these variants has not been fully characterized. [provided by RefSeq, Jul 2008],

---

**Function :**

domain:Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal steroid-binding domain.,function:Nuclear hormone receptor. Binds estrogens with an affinity similar to that of ESR1, and activates expression of reporter genes containing estrogen response elements (ERE) in an estrogen-dependent manner. Isoform beta-cx lacks ligand binding ability and has no or only very low ere binding activity resulting in the loss of ligand-dependent transactivation ability. DNA-binding by ESR1 and ESR2 is rapidly lost at 37 degrees Celsius in the absence of ligand while in the presence of 17 beta-estradiol and 4-hydroxy-tamoxifen loss in DNA-binding at elevated temperature is more gradual.,online information:Estrogen receptor entry,similarity:Belongs to the nuclear hormone receptor family.,similarity:Belongs to the nuclear hormone receptor family. NR3 subfamily.,si

---

**Subcellular Location :**

Nuclear

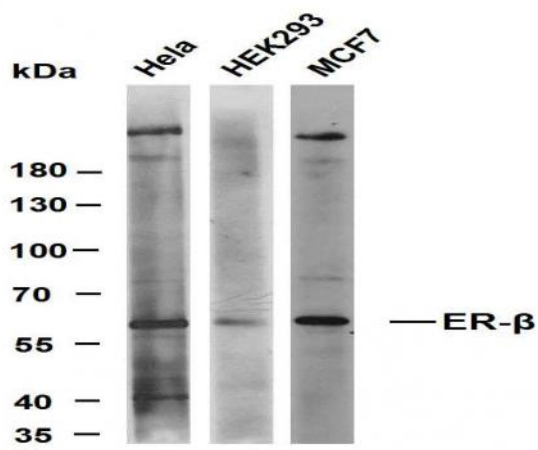
---

**Expression :**

[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 2]: Expressed in spleen, thymus, testis and ovary and at a lower level in skeletal muscle, prostate, colon, small intestine, leukocytes, bone marrow, mammary gland and uterus. ; [Isoform 4]: Expressed in the testis. ; [Isoform 5]: Expressed in testis, and at a lower level in spleen, thymus, ovary, mammary gland and uterus. ; [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, sm

---

## Products Images



Various whole cell lysates were separated by 8% SDS-PAGE, and the membrane was blotted with anti-ER- $\beta$  (PT0318) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: HEK293 Lane 3: MCF7