

**ER-beta1 (Estrogen Receptor beta-1) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone ESR2/686 ]**  
**Catalog # AH11198**

**Specification**

---

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

Application	,1,2,3,4,
Primary Accession	<a href="#">O92731</a>
Other Accession	<a href="#">2100</a> , <a href="#">660607</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a
Calculated MW	53-59kDa KDa

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

**Gene ID** 2100

**Other Names**

Estrogen receptor beta, ER-beta, Nuclear receptor subfamily 3 group A member 2, ESR2, ESTRB, NR3A2

**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.

**ER-beta1 (Estrogen Receptor beta-1) Antibody - With BSA and Azide - 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: <http://www.uniprot.org/citations/20074560> target="\_blank">20074560</a>).

**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.

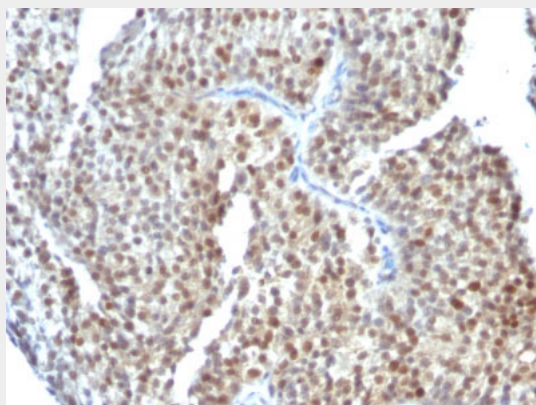
[Isoform 4]: Expressed in the testis. [Isoform 6]: Expressed in testis, placenta, skeletal muscle, spleen and leukocytes, and at a lower level in heart, lung, liver, kidney, pancreas, thymus, prostate, colon, small intestine, bone marrow, mammary gland and uterus. Not expressed in brain.

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

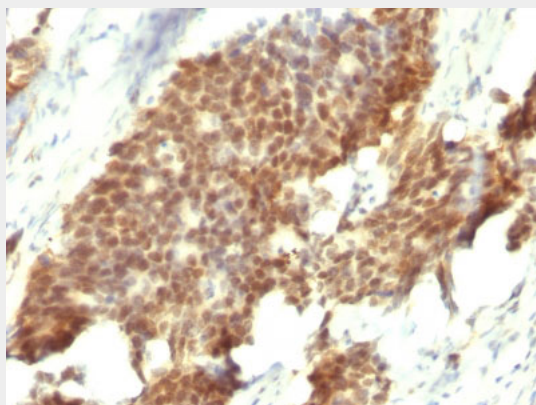
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

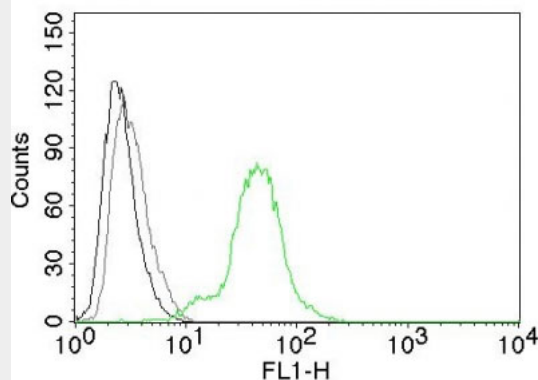
### ER-beta1 (Estrogen Receptor beta-1) Antibody - With BSA and Azide - Images



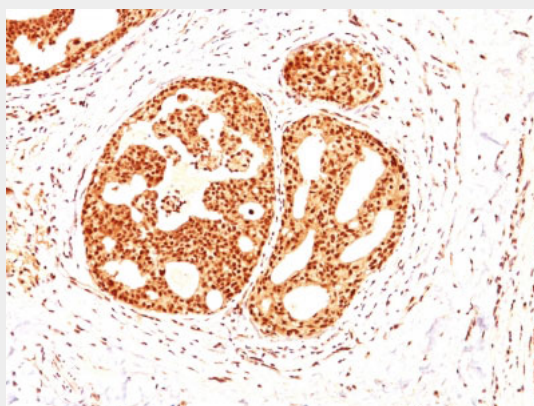
Formalin-fixed, paraffin-embedded human Bladder Carcinoma stained with ER-beta1 Monoclonal Antibody (ESR2/686).



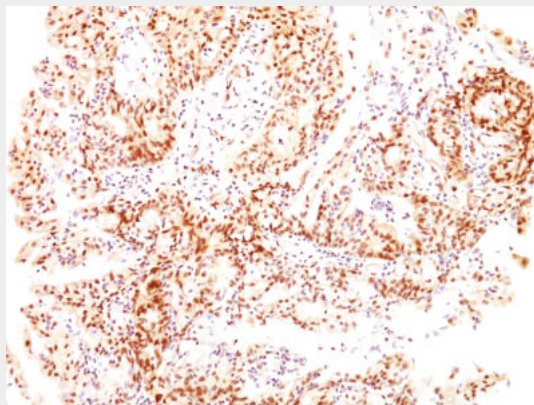
Formalin-fixed, paraffin-embedded human Gastric Carcinoma stained with ER-beta1 Monoclonal Antibody (ESR2/686).



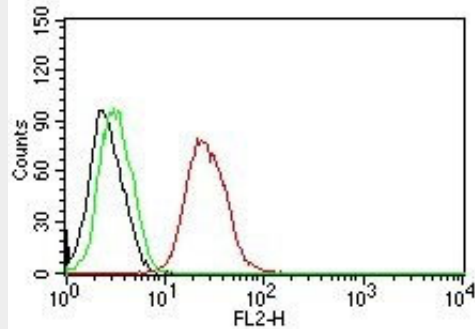
Flow Cytometry of human ER beta on BT474 Cells. Black: Cells alone; Grey: Isotype Control; Green: AF488-labeled ER beta1 Monoclonal Antibody (ESR2/686).



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).

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

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

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