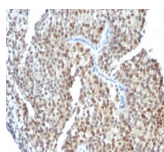


# Estrogen Receptor Beta 1 Monoclonal Mouse Antibody (ESR2/686)



## Product Description

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.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 0686, Anti-Estrogen Receptor Beta 1 (ESR2/686)**

## Product attributes

|  |   |
|--|---|
| <b>Antibody number</b>                       | #0686   |
| <b>Antibody reactivity (target)</b>          | Estrogen Receptor Beta 1  |
| <b>Antibody type</b>                         | Primary   |
| <b>Host species</b>                          | Mouse   |
| <b>Clonality</b>                             | Monoclonal  |
| <b>Clone</b>                                 | ESR2/686  |
| <b>Isotype</b>                               | IgG2a   |
| <b>Molecular weight</b>                      | 53-59 kDa   |
| <b>Synonyms</b>                              | Erb, ESR BETA, ESR2, ESRB, ESTRB, estrogen nuclear receptor beta variant a, estrogen nuclear receptor beta variant b, estrogen receptor 2 (ER beta), estrogen receptor beta 4   |
| <b>Human gene symbol</b>                     | ESR2  |
| <b>Entrez gene ID</b>                        | 2100  |
| <b>SwissProt</b>                             | Q92731  |
| <b>Unigene</b>                               | 660607  |
| <b>Immunogen</b>                             | C-terminus fragment of recombinant human estrogen receptor beta protein   |
| <b>Verified antibody applications</b>        | Flow (intracellular) (verified), IHC (FFPE) (verified)  |
| <b>Antibody target cellular localization</b> | Nucleus   |
| <b>Species reactivity</b>                    | Human   |
| <b>Antibody application notes</b>            | Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology formalin-fixed 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Western blotting 0.5-1 ug/mL, Optimal dilution for a specific application should be determined by user |
| <b>Positive control</b>                      | MCF-7 Cells, Ovarian, Breast, Bladder, Gastric or Salivary carcinoma  |
| <b>Shipping condition</b>                    | Room temperature  |
| <b>Storage Conditions</b>                    | Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C   |
| <b>Shelf life</b>                            | Guaranteed for at least 24 months from date of receipt when stored as recommended   |
| <b>Regulatory status</b>                     | For research use only (RUO)   |
| <b>Antibody/conjugate formulation</b>        | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide   |
| <b>Antibody research areas</b>               | Cancer, Endocrinology, Nuclear receptors  |
| <b>Product origin</b>                        | Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.   |
| <b>Tumor expression</b>                      | Breast cancer   |

| Antibody # prefix | Conjugation        | Ex/Em (nm) | Laser line | Detection channel        | Dye Features                     |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04             | CF®405S            | 404/431    | 405        | DAPI (microscopy), AF405 | <a href="#">CF®405S Features</a> |
| BNC88             | CF®488A            | 490/515    | 488        | GFP, FITC                | <a href="#">CF®488A Features</a> |
| BNC68             | CF®568             | 562/583    | 532, 561   | RFP, TRITC               | <a href="#">CF®568 Features</a>  |
| BNC94             | CF®594             | 593/614    | 561        | Texas Red®               | <a href="#">CF®594 Features</a>  |
| BNC40             | CF®640R            | 642/662    | 633-640    | Cy®5                     | <a href="#">CF®640R Features</a> |
| BNC47             | CF®647             | 650/665    | 633-640    | Cy®5                     | <a href="#">CF®647 Features</a>  |
| BNC74             | CF®740             | 742/767    | 633-685    | 775/50                   | <a href="#">CF®740 Features</a>  |
| BNCB              | Biotin             | N/A        | N/A        | N/A                      |                                  |
| BNUB              | Purified           | N/A        | N/A        | N/A                      |                                  |
| BNUM              | Purified, BSA-free | N/A        | N/A        | N/A                      |                                  |

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