

## Estrogen Receptor (ER) [6F11]

Format	Catalog No.	Pack size	Dilution
Concentrated	GB093C	0.1 mL	1:100
Prediluted	GB093AA	6.0 mL	RTU

### PRODUCT DESCRIPTION -

In tissues that respond to estrogen, the 66-kDa protein known as the estrogen receptor mouse antibody (ER) mediates the effects of estrogens. The ER gene is made up of eight exons and more than 140 kb of genomic DNA. These result in a protein with six distinct functional domains, designated A through F. This antibody can be used to mark tissues like the breast that are targeted by estrogen.

### INTENDED USE -

Analyte Specific Reagent. Analytical and performance characteristics are not established.

### SUMMARY AND EXPLANATION -

A mouse monoclonal antibody called Estrogen Receptor (ER) [6F11] targets the human estrogen receptor protein. In tissues that respond to estrogen, the 66 kDa protein known as ER mediates the effects of estrogens. The ER gene is made up of eight exons and over 140 kb of genomic DNA. These result in a protein with six distinct functional domains, designated A through F. This antibody can be used to mark organs like the uterus and breast that are estrogen-targeted.

### PRINCIPLE OF PROCEDURE -

Antigen detection in tissues and cells is a multi-step immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, a secondary antibody is introduced to attach to the primary antibody. An enzyme label is subsequently introduced to attach to the secondary antibody; the detection of the attached antibody is demonstrated using a colorimetric reaction.

SOURCE - Mouse polyclonal

SPECIES REACTIVITY - Reacts with human estrogen receptors; may cross-react with other species

CLONE - 6F11

ISOTYPE - : IgG1/kappa

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - The Estrogen Receptor (ER) 6F11 antibody targets the estrogen receptor alpha (ER $\alpha$ ), a key transcription factor involved in estrogen signaling pathways.

CELLULAR LOCALISATION - The antibody primarily localizes in the nucleus of target cells, reflecting the role of estrogen receptors in regulating gene expression in response to estrogen.

POSITIVE TISSUE CONTROL - Breast carcinoma

KNOWN APPLICATIONS - Immunohistochemistry  
30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with protein carrier and preservative

STORAGE AND STABILITY -

Store at 2°C to 8°C. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Materials required but not provided -

- 1) Positive tissue control - Breast carcinoma
- 2) Negative control tissue (internal or external)
- 3) Microscope slides and coverslips
- 4) Staining jars or baths
- 5) Timer
- 6) Xylene or xylene substitute
- 7) Ethanol or reagent alcohol
- 8) Deionized or distilled water
- 9) Heating equipment or enzyme for tissue pretreatment step
- 10) Detection system
- 11) Chromogen
- 12) Wash buffer
- 13) Hematoxylin

- 14)Antibody diluents
- 15)Peroxide block
- 16)Light microscope
- 17)Mounting medium

#### LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.