

Estrogen Receptor (ER) [6F11 + SP1]

Prediluted Mouse Monoclonal and Rabbit Monoclonal Antibody
Control Number: 902-308-092017

Catalog Number: PM 308 AA, H
Description: 6.0, 25ml prediluted
Dilution: Ready-to-use
Diluent: N/A

Intended Use:
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

Estrogen Receptor (ER) [6F11 + SP1] is a cocktail of mouse monoclonal antibody [6F11] and rabbit monoclonal antibody [SP1] directed against human estrogen receptor (ER) protein. ER is a 66 kDa protein that mediates the actions of estrogen in estrogen-responsive tissues. The ER gene consists of more than 140 kb of genomic DNA divided into 8 exons. These translate into a protein with six functionally discrete domains, labeled A through F. Both antibodies have been used for immunohistochemistry on formalin-fixed paraffin-embedded tissues (1-7).

Source: Mouse monoclonal and Rabbit monoclonal

Species Reactivity: Human; others not tested

Clone: 6F11 + SP1

Isotype: IgG1/kappa (6F11) and Rabbit IgG (SP1)

Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration.

Epitope/Antigen: Estrogen Receptor

Cellular Localization: Nuclear

Positive Control: Breast carcinoma

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative

Storage and Stability:

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Staining Protocol Recommendations:

Peroxide Block: Block for 5 minutes with Biocare's Peroxidized 1.

Pretreatment Solution (recommended): Reveal or Diva

Pretreatment Protocol:

Heat Retrieval Method:

Preheat the retrieval solution to 95°C for 30 minutes in Biocare's Decloaking Chamber. Then, place slides into the preheated solution and retrieve under pressure at 95°C for 40 minutes; alternatively, steam tissue sections for 45-60 minutes or use a water bath at 95°C for 40 minutes. Allow solution to cool for 20 minutes then wash in distilled water.

Protein Block (Optional): Incubate for 5-10 minutes at RT with Biocare's Background Punisher.

Primary Antibody: Incubate for 45-60 minutes at RT.

Probe: Incubate for 10 minutes at RT with a secondary probe.

Polymer: Incubate for 20 minutes at RT with a tertiary polymer.

Chromogen: Incubate for 5 minutes at RT with Biocare's DAB - OR - Incubate for 5-7 minutes at RT with Biocare's Warp Red.

Counterstain: Counterstain with hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute. Rinse with deionized water.

Technical Note:

This antibody has been standardized with Biocare's MACH 4 detection system. It can also be used on an automated staining system and with other Biocare polymer detection kits. Use TBS buffer for washing steps. For optimum results breast tissues should be fixed a minimum of 8-24 hours.

Limitations:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

Precautions:

1. This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN₃) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976) (8)
2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water. (9)
3. Microbial contamination of reagents may result in an increase in nonspecific staining.
4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
5. Do not use reagent after the expiration date printed on the vial.
6. The MSDS is available upon request and is located at <http://biocare.net/support/msds/>.

Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

References:

1. Bevitt DJ, *et al.* New monoclonal antibodies to oestrogen and progesterone receptors effective for paraffin section immunohistochemistry. *J Pathol.* 1997 Oct;183(2):228-32.
2. Kaplan PA, *et al.* ID5 and 6F11: An immunohistochemical comparison of two monoclonal antibodies for the evaluation of estrogen receptor status in primary breast carcinoma. *Am J Clin Pathol.* 2005 Feb;123(2):276-80.
3. Bogina G, *et al.* Comparison of anti-estrogen receptor antibodies SP1, 6F11, and ID5 in breast cancer: lower ID5 sensitivity but questionable clinical implications. *Am J Clin Pathol.* 2012 Nov;138(5):697-702.
4. Cheang MC, *et al.* Immunohistochemical detection using the new rabbit monoclonal antibody SP1 of estrogen receptor in breast cancer is superior to mouse monoclonal antibody ID5 in predicting survival. *J Clin Oncol.* 2006 Dec;24(36):5637-44.
5. Rosso S, *et al.* Rabbit monoclonal antibodies: a comparative study between a novel category of immunoreagents and the corresponding mouse monoclonal antibodies. *Am J Clin Pathol.* 2005 Aug; 124(2):295-302.
6. Cano G, *et al.* Estimation of hormone receptor status in fine-needle aspirates and paraffin-embedded sections from breast cancer using the novel rabbit monoclonal antibodies SP1 and SP2. *Diagn Cytopathol.* 2003 Oct;29(4):207-11.
7. Rocha R, *et al.* Rabbit monoclonal antibodies show higher sensitivity than mouse monoclonals for estrogen and progesterone receptor evaluation in breast cancer by immunohistochemistry. *Pathol Res Pract.* 2008;204(9):655-62.
8. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."
9. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory workers from occupationally Acquired Infections; Approved guideline-Third Edition CLSI document M29-A3 Wayne, PA 2005.