

Estrogen Receptor (ER) SP1

Format	Catalog no.	Pack size	Dilution
Concentrated	GB301A,B,C	0.1, 0.5, 1.0 mL	1:100
Prediluted	GB301AA,H	6.0, 25 mL	RTU

PRODUCT DESCRIPTION -

The 66 kDa protein known as the human estrogen receptor (ER antibody) functions as a nuclear hormone receptor that is dependent on estrogen. The nuclei of epithelial cells in normal breast and endometrial tissues, as well as a fraction of breast carcinomas, have been found to contain ER, according to studies. The ER protein's C-terminal epitope is the target of the SP1 clone, a high affinity rabbit monoclonal antibody. According to studies, the SP1 clone is more sensitive to breast cancer than the mouse monoclonals already on the market. SP1 staining can occasionally be achieved without antigen retrieval.

INTENDED USE -

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

SUMMARY AND EXPLANATION -

The 66 kDa protein known as the human estrogen receptor (ER) functions as a nuclear hormone receptor that is dependent on estrogen. Research indicates that ER is found in the nucleus of epithelial cells in endometrial and normal breast tissues, as well as in a fraction of breast cancers. The SP1 clone is a rabbit monoclonal antibody with a high affinity that targets an epitope of the ER protein's C-terminus. It has been demonstrated that SP1 can dye tissues embedded in formalin-fixed paraffin. Successful immunohistochemistry with lower temperatures for antigen retrieval (such as 80 or 95 degrees Celsius) has shown the robustness of SP1, and in certain cases, staining can be achieved even in the absence of antigen retrieval.

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 antibody is demonstrated using a colorimetric reaction.

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SOURCE - Rabbit polyclonal

SPECIES REACTIVITY - Human

CLONE- SP1

ISOTYPE - IgG

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN- ER

CELLULAR LOCALISATION - The Estrogen Receptor (ER) SP1 antibody is primarily localized in the nucleus of target cells, where it plays a crucial role in mediating estrogen signaling.

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 for 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.