



# Mab to Estrogen Receptor

<b>Clone Determination</b>	CC4-5
<b>Category</b>	Mouse monoclonal
<b>Immunoglobulin Class</b>	IgG <sub>1</sub>
<b>Purification/Form</b>	Culture supernatant
<b>Antigen for Immunization</b>	Synthetic peptide
<b>Specificity</b>	Estrogen receptor can be detected in up to 70% of breast carcinomas. The quantity of estrogen receptor protein is important for prognosis and treatment of breast cancer (e.g. response to endocrine therapy). The antibody shows nuclear, no cytoplasmic staining.
<b>Application</b>	<ul style="list-style-type: none"><li>• Immunocytochemistry</li><li>• Immunocytochemistry of frozen sections and paraffin-embedded tissue after microwave pretreatment (see protocol for paraffin sections below)</li></ul>
<b>Positive Control</b>	ER-positive cell line (e.g. MCF-7)
<b>Dilution Buffer</b>	Dilute immediately before use with PBS or Tris buffer
<b>Working Dilution</b>	1:5 – 1:10 for immunohistochemistry
<b>Storage</b>	At 2 – 8°C or in aliquots at -20°C
<b>Volume</b>	1 ml; contains 0.1% NaN <sub>3</sub>

## Application on paraffin sections

- Fixation: Small tissue blocks should be fixed as soon as possible after removal, in 10% buffered formalin. The fixation time should not exceed 24 hours. During the embedding process temperatures must be kept below 60°C.
- Mount sections on slides coated with an appropriate medium (Vectabond, APES) at 37°C overnight followed by drying at 56°C for 60 minutes.
- Deparaffinize sections and rehydrate to distilled water.

## Antigen retrieval

- Place slides in a coplin jar containing 0.01 M sodium citrate buffer, pH 6.0.
- Incubate for 3 x 5 minutes in a microwave oven (750W) with 1 min intervals.
- Quench sections for 30 min at room temperature.
- Rinse for 30 min in PBS.
- Block endogeneous peroxidase activity (0.3% H<sub>2</sub>O<sub>2</sub> in 50% methanol).
- Apply (approximately diluted) Receptor Antibody.
- Continue immunohistochemical staining procedure with conjugate and substrate reaction.

## References

Clark GM et al. Clinical usefulness of oestrogen-receptor and other markers of hormone dependence. Proc Royal Society Edinburgh. 95B:145-150 (1989)

Mason BH et al. Progesterone and Oestrogen Receptor as Prognostic Variables in Breast Cancer (1993). Cancer Research 43, 2985-2990 (1983)

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