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# Monoclonal Antibody to Estrogen receptor alpha (C-term) - Supernatant

**Alternate names:** ER alpha, ESR, ESR1, Estradiol receptor, NR3A1, Nuclear receptor subfamily 3 group A member 1

**Catalog No.:** AM11134PU-N

**Quantity:** 1 ml

**Background:** Steroid hormone receptors exhibit a high affinity and specificity for their ligands. The human estrogen receptor (ER) exists in two forms, ERalpha and ERbeta. The receptors have a high degree of homology in their DNA binding and ligand binding domains and can form heterodimers. However, the two ERs signal in different ways; for example, ERbeta does not potentiate the nuclear transcription factor AP-1 when complexed with oestradiol, whereas ERalpha does. This suggests that ERalpha and ERbeta may have different roles in gene regulation and their relative levels within tissues may influence cellular responses to oestrogens.

**Uniprot ID:** P03372

**NCBI:** 9606

**GeneID:** 2099

**Host:** Rabbit

**Clone:** SP1

**Immunogen:** Synthetic peptide derived from C-terminal of Human Estrogen Receptor alpha.
**Remarks: Epitope:** C-terminus.
**Molecular Weight:** 67kDa.

**Format:** **State:** Liquid Tissue Culture Supernatant
**Buffer System:** TBS buffer, pH7,5 containing 1% BSA as stabilizer and 0.09% Sodium Azide as preservative.

**Applications:** **Western Blot:** 1/25, incubate for 1 hour at RT.
**Immunohistochemistry with Formalin-Fixed, Paraffin-Embedded tissues:** 1/200
Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min. Slides must be washed in between steps. Rinse slides with PBS/0.05% Tween.
*Incubation Time:* 30 minutes at RT.
*Positive Control*: Breast carcinoma.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:** This monoclonal anti-Human Estrogen Receptor antibody (Clone SP1) is intended for the qualitative detection of estrogen receptor (ER) alpha form in sections of formalin-fixed, paraffin embedded tissues.

This antibody recognizes a protein of 67kDa which is identified as estrogen receptor (ER). This antibody strongly stains the nucleus of epithelial cells in breast carcinomas. The ER is an important regulator of growth and differentiation in the mammary gland.
Steroid hormone receptors exhibit a high affinity and specificity for their ligands.
Cellular Localization: Nucleus.

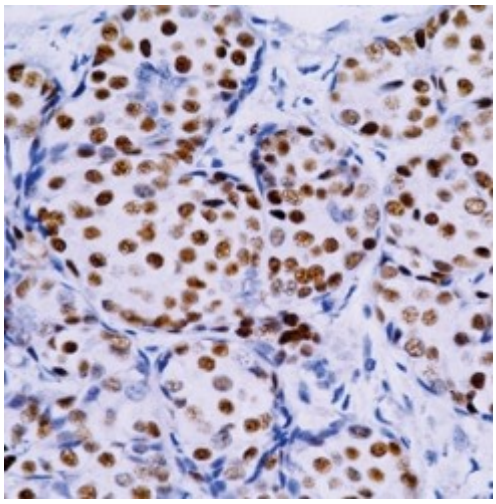
**Species Reactivity:** **Tested:** Human.
**Expected from sequence similarity:** Hamster.

**Storage:** Store the antibody undiluted at 2-8°C.
**DO NOT FREEZE!**
Shelf life: one year from despatch.

**General Readings:**

1. Rocha R, Nunes C, Rocha G, Oliveira F, Sanches F, Gobbi H. 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. doi: 10.1016/j.prp.2008.03.010. Epub 2008 Jun 18. PubMed PMID: 18565685.
2. Cheang MC, Treaba DO, Speers CH, Olivotto IA, Bajdik CD, Chia SK, et al. Immunohistochemical detection using the new rabbit monoclonal antibody SP1 of estrogen receptor in breast cancer is superior to mouse monoclonal antibody 1D5 in predicting survival. J Clin Oncol. 2006 Dec 20;24(36):5637-44. Epub 2006 Nov 20. PubMed PMID: 17116944.
3. Huang Z, Zhu W, Szekeres G, Xia H. Development of new rabbit monoclonal antibody to estrogen receptor: immunohistochemical assessment on formalin-fixed, paraffin-embedded tissue sections. Appl Immunohistochem Mol Morphol. 2005 Mar;13(1):91-5. PubMed PMID: 15722800.

**Pictures:** AM11134PU Estrogen Receptor antibody staining of Human breast carcinoma.



Western Blot analysis of MCF7 cell lysate with ER antibody