

Anti-estrogen receptor alpha [H222.2] Standard Size Ab02567-6.4

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

Isotype and Format: Rat IgG1, [Fc Silent™](#), Kappa

Clone Number: H222.2

Alternative Name(s) of Target: Estrogen receptor; ER; ER-alpha; Estradiol receptor; Nuclear receptor subfamily 3 group A member 1; ESR1

UniProt Accession Number of Target Protein: P03372

Published Application(s): functional assay, IP, WB, ELISA, IHC

Published Species Reactivity: Chicken, Cow, Monkey, Rat, red-sided garter snake, Human

Immunogen: This antibody was raised by immunizing a Lewis rat, with affinity-purified estrophilin.

Specificity: This antibody is specific for human estrogen receptor. The estrogen receptor is a nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Ligand-dependent nuclear transactivation involves either direct homodimer binding to a palindromic estrogen response element (ERE) sequence or association with other DNA-binding transcription factors, such as AP-1/c-Jun, c-Fos, ATF-2, Sp1 and Sp3, to mediate ERE-independent signaling.

Application Notes: ELISA was preformed on human breast cancer tissue, human, monkey and calf uterus tissue and hen oviduct tissue. For this ELISA this antibody was used (Greene et al, 1984; pmid:6200700). Semi-confluent HeLa cells (3-5 x 10⁶ cells/9 cm Petri dish) transfected with 10 µg of recombinant DNA (HEO-HE14) were immunoprecipitated with this antibody (Kumar et al, 1986; pmid:3780678).

Immunohistochemistry was preformed, to compare them to their own antibodies, on human breast cancers using this antibody (Saati et al, 1993; pmid:8406995). Western blot was preformed on protein extracts from (i) transformed E. coli; (ii) COS cells transfected with pSG5-HGO or pSG5-HG19 (containing a deletion mutant of the ER cDNA lacking the sequence coding for the 178 N terminal amino-acids) the human breast-cancer cell line MCF-7 (ATCC HTB 22, Rockville, MD) and (iv) endometrial tissue. In this western blotting this antibody was used (Saati et al, 1993; pmid:8406995). This antibody was used for immunohistochemistry on brain tissue of female rats (Henry Jr et al, 1991; pmid:1917572). Immunohistochemistry was preformed on tissue samples from surgically removed human uteri using this antibody (Charpin et al, 1986; pmid:3522449). Sucrose density gradients were preformed on anterior oviduct or liver tissue from a red-sided garter snake using this antibody (Whittier et al, 1991; pmid:2026308). A steroid specificity trail was

performed on anterior oviduct or liver tissue from a red-sided garter snake using this antibody (Whittier et al, 1991; pmid:2026308). to characterize the putative membrane ER on human spermatozoa, western blot was performed on human sperm lysates (Luconi et al, 2004; pmid:15288769).

Antibody First Published in: Greene et al. Immunochemical studies of estrogen receptors J Steroid Biochem. 1984 Jan;20(1):51-6. [PMID:6200700](#)

Note on publication: Describes a Lewis rat being immunized, with affinity-purified estrophilin, to create this antibody.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.