Anti-Aromatase is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 472-486 of human aromatase (GeneID: 1588), conjugated to KLH via an added cysteine residue. The corresponding peptide differs from the rat sequence by three amino acids. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Aromatase specifically recognizes human aromatase. The antibody may be used in several applications including immunoblotting (50-55 kDa) and indirect immunofluorescence. Detection of the aromatase band by immunoblotting is specifically inhibited by the immunizing peptide.

Aromatase, also known as CYP19A1, CYP XIX, P-450arom, and ARO, is a cytochrome P450 enzyme complex responsible for estrogen biosynthesis that converts testosterone to estradiol, and androstenedione to estrone. Aromatase catalyzes the final and key step, the conversion of C19 steroids to estrogens. Two proteins, cytochrome P450arom and NADPH-cytochrome P450 reductase, are necessary for its enzymatic activity. The enzyme complex is localized in the smooth endoplasmic reticulum of estrogen producing cells. Aromatase is expressed in a number of cells and tissues, such as placenta, gonads, various parts of the brain, adipose tissue, normal breast and breast cancer tissue, and fetal tissues. Aromatase tissue-specific expression is determined, at least in part, by alternative use of tissue specific promoters, which result in transcripts with a unique 5-prime non-coding terminus. Aromatase inhibitors successfully treat breast cancer and endometriosis, whereas their roles in endometrial cancer, uterine fibrosis, and aromatase excess syndrome are less clear.

Reagent
Supplied as a solution in 0.01 M PBS, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL