

Aromatase (D5Q2Y) Rabbit mAb

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Applications: W, IP, IHC-P	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 50	Source/Isotype: Rabbit IgG	UniProt ID: #P11511	Entrez-Gene Id: 1588
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:50
1:4200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

Aromatase (D5Q2Y) Rabbit mAb recognizes endogenous levels of total aromatase protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human aromatase protein.

Background

Aromatase is a member of the cytochrome P450 superfamily of enzymes, which are monooxygenases that catalyze reactions involved in drug metabolism and cholesterol and steroid synthesis (1,2). Aromatase is responsible for the conversion of testosterone into 17-β estradiol (2). Aromatase is mainly expressed in the brain (3), ovaries (4), and placenta (5). Aromatase plays an important role in development of the central nervous system during ontogenesis (6,7), gonadal development, and sex differentiation (8,9). Research studies have suggested that inhibition of aromatase may be an effective therapeutic strategy for postmenopausal breast cancers that are estrogen receptor positive (6,10). Mutations in the corresponding aromatase gene are associated with cases of aromatase excess syndrome (AEXS) and aromatase deficiency (AROD) disorders (11-14).

Background References

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2. Chen, S.A. et al. (1988) *DNA* 7, 27-38.
3. Hinshelwood, M.M. et al. (2000) *Endocrinology* 141, 2050-3.
4. Pezzi, V. et al. (2003) *J Steroid Biochem Mol Biol* 87, 181-9.
5. Peruffo, A. et al. (2011) *Gen Comp Endocrinol* 172, 211-7.
6. Montelli, S. et al. (2012) *Brain Res* 1475, 11-8.
7. Kuntz, S. et al. (2003) *Cytogenet Genome Res* 101, 283-8.
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9. Hu, Q. et al. (2012) *J Med Chem* 55, 7080-9.
10. Gilani, R.A. et al. (2012) *Breast Cancer Res Treat* 135, 681-92.
11. Ito, Y. et al. (1993) *Proc Natl Acad Sci U S A* 90, 11673-7.
12. Morishima, A. et al. (1995) *J Clin Endocrinol Metab* 80, 3689-98.
13. Carani, C. et al. (1997) *N Engl J Med* 337, 91-5.
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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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