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Product Information

Anti-Estrogen-Related Receptor γ
produced in rabbit, affinity isolated antibody

Catalog Number **E0281**

Synonyms: Anti- ERRγ; Anti- NR3B3

Product Description
Anti-Estrogen-Related Receptor γ is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the internal domain of human estrogen-related receptor γ. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Estrogen-Related Receptor γ specifically recognizes human estrogen-related receptor γ by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. Not tested for other uses. The immunizing peptide has 100% homology with the rat and mouse gene. Other species reactivity has not been confirmed.

Estrogen-Related Receptor γ, a NR3 Steroid Receptor, has been suggested to affect differentiation of the brain, heart, and kidney. ERRγ binds as a monomer to an extended half-site of the ERRE type (TCAAGGTCA). ERRγ has been shown to interact with PGC-1α and has been implicated in the regulation of mitochondrial energy metabolism. In humans, ERRγ pre-mRNA undergoes extensive alternative splicing at the 5' end, yielding at least six mRNA splice variants and two protein isoforms that differ by 23 amino acids in the N-terminus. ERRγ has been shown to be overexpressed in breast tumors, and its expression is correlated with levels of ErbB4, a likely indicator of preferred clinical course.

As a result, ERRγ has been suggested to be a potential biomarker for favorable clinical course and, possibly, hormonal sensitivity, and as a candidate target for therapeutic development.

Expression: ERRγ expressions at the mRNA and protein levels are isoform- and tissue-specific in humans. ERRγ expression has been documented in human heart, brain, placenta, skeletal muscle, kidney, pancreas, spleen, prostate, testis, and small intestine. ESTs (Expressed Sequence Tags) have been isolated from human tissue libraries, including cancerous fetus, uterus, lung, breast, head/neck, colon, skin, eye, adrenal, and breast, and normal placenta, kidney, brain, eye, pineal, ear, and heart.

Ligand: Unknown at present time. Evidence has been presented for ligand-independent transcriptional activation by ERRγ (Greschik *et al.,* 2002).

Reagent
Supplied as a solution of 1 mg/ml in phosphate buffered saline, pH 7.7, containing 0.01% sodium azide as a preservative.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile
Immunohistochemistry: the optimal working concentration of ~ 17 µg/ml is determined using human breast tissue.

Note: In order to obtain the best results and assay sensitivity in different techniques and preparations, we recommend determining optimal working dilutions by titration test.

This product is manufactured by MBL International Corporation

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