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Product Information

Anti-Prostaglandin E_2 Receptor
produced in rabbit, affinity isolated antibody

Catalog Number **P7747**

Synonym: Anti-EP_2

Product Description
Anti-Prostaglandin E_2 Receptor is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the extracellular N-terminus of human prostaglandin E_2 receptor. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

The antibody specifically recognizes human prostaglandin E_2 receptor by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. Not tested for other uses. The immunizing peptide has 83% homology with mouse and rat genes. Other species reactivity has not been confirmed.

The most biologically active prostaglandin, PGE_2, is synthesized from arachidonic acid through the cyclooxygenase pathway. Many cell types produce PGE_2, including epithelial cells, fibroblasts and macrophages. PGE_2 modulates immune functions and regulates the sleep-wake cycle. PGE_2 induces cervical ripening and parturition, mediates bradykinin-induced vasodilation, and regulates adenylyl cyclase. Tumor cells that over-express cyclooxygenase 2 display increased invasiveness, angiogenesis, and resistance to apoptosis that may be due to the PGE_2-induced expression of angiogenic factors and stabilization of the anti-apoptotic protein, survivin.

Prostaglandin E_2 Receptor expression has been documented in eye, ovary, uterus, and vessels. ESTs have been isolated from bone marrow and heart/melanocyte/uterus libraries

Reagents
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: a minimum working concentration of 2 µg/mL was determined using ovarian granulosa cells.

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

References
1. Tsuneo Takadera, et al., Prostaglandin E_2 induced caspase-dependent apoptosis possibly through activation of EP_2 receptors in cultured hippocampal neurons., *Neurochemistry International*, **45***, 713-719* (2003).
2. Megalo, A., et al., Influence of misoprostol or prostaglandin E_2 for induction of labor on the incidence of pathological CTG tracing: a randomized trial., *European J. of Obstetrics & Gynecology and Reproductive Biology*, **116**, 34-38 (2004).

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