Anti-Prostaglandin E₂ Receptor EP₃
produced in rabbit, affinity isolated antibody

Catalog Number P8372

Product Description
Anti-Prostaglandin E₂ Receptor EP₃ (PTGER3) is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the C-terminus of human prostaglandin E₂ receptor EP₃. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

The antibody specifically recognizes human prostaglandin E₂ receptor EP₃ by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. Not tested for other uses. The immunizing peptide has 94% homology with the rat gene and 100% homology with the mouse gene. Other species reactivity has not been confirmed.

3 isoforms of PTGER3 with the predicted 365-, 388-, and 390-amino acid proteins are identical through the first 359 amino acids, which include the 7 transmembrane domains. Binding assays performed on human PTGER3 proteins expressed in mammalian cells showed that the 3 isoforms have comparable ligand-binding properties.

Prostaglandin E₂ is important in fever generation. Experiments with mice established that PGE₂ mediates fever generation in response to both endogenous and exogenous pyrogens by acting at the EP₃ receptor. Mice, lacking receptors EP₁, EP₂, EP₃, and EP₄, were administered PGE₂. Only mice lacking the EP₃ receptor failed to show a febrile response to PGE₂ and to either IL1B or LPS. EP₁ and EP₃-mediated neuronal pathways converge at corticotropin-releasing hormone-containing neurons in the paraventricular nucleus of the hypothalamus to induce HPA axis activation during sickness.

Prostaglandin E₂ Receptor EP₃ expression has been documented throughout the periphery, especially kidney. ESTs have been isolated primarily from kidney 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 recommended working concentration of 1-13 µg/mL is determined using kidney sections or cells.

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

References