

PRODUCT INFORMATION



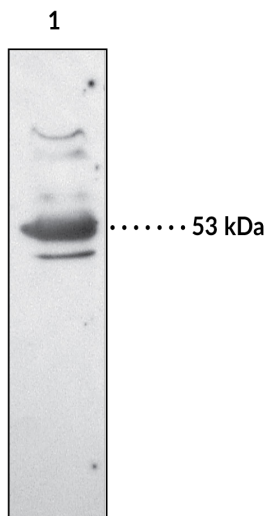
EP₃ Receptor Polyclonal Antibody

Item No. 101760

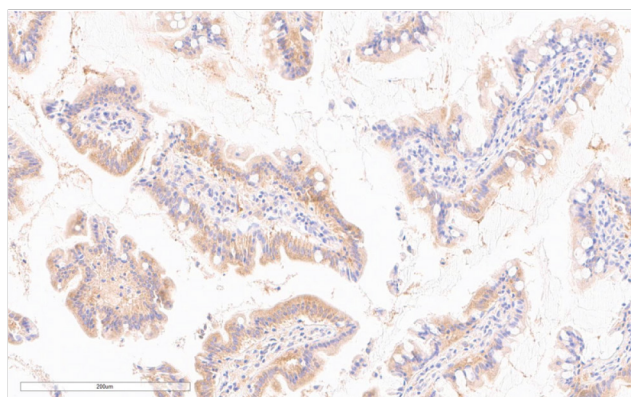
Overview and Properties

Contents: This vial contains 500 µl of peptide affinity-purified antibody.
Synonyms: PGE₂ Receptor 3, Prostaglandin E₂ Receptor 3
Immunogen: Synthetic peptide from an internal region of human EP₃ receptor
Cross Reactivity: (+) EP₃ receptor; (-) EP₁, EP₂, and EP₄ receptors
Species Reactivity: (+) Human, bovine, mouse, and rat; other species not tested.
Uniprot No.: P43115
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥1 year
Storage Buffer: PBS, pH 7.2, with 0.02% sodium azide and 50% glycerol
Host: Rabbit
Applications: Immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for IHC and WB is 1:120 and 1:200, respectively. *NOTE: The EP₃ receptor appears to be expressed at low levels in many tissues and cell types, potentially making detection by immunochemical techniques difficult.* ICC and other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Rat sensory neuron (20 µg)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human small intestine tissue after heat-induced antigen retrieval in pH 6.0 citrate buffer. After incubation with EP₃ Receptor Polyclonal Antibody (Item No. 101760) at a 1:120 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

The biological effects of prostaglandin E₂ (PGE₂) are mediated through interaction with four distinct membrane-bound G-protein coupled EP receptors: EP₁, EP₂, EP₃, and EP₄.^{1,2} As a result of splice variation, the EP₃ receptor can be expressed as multiple isoforms that differ in the length and sequence of their C-terminal tails.^{2,3} The signal transduction mechanism varies depending on the isoform being expressed, implicating the importance of the C-terminal region of the receptor for coupling to G-proteins.^{2,3} The EP₃ receptor is expressed in a variety of tissues with highest levels in kidney, pancreas, and uterus.³⁻⁵

References

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3. Kotani, M., Tanaka, I., Ogawa, Y., *et al.* Molecular cloning and expression of multiple isoforms of human prostaglandin E receptor EP₃ subtype generated by alternative messenger RNA splicing: Multiple second messenger systems and tissue-specific distributions. *Mol. Pharmacol.* **48**, 869-879 (1995).
4. Sugimoto, Y., Namba, T., Honda, A., *et al.* Cloning and expression of a cDNA for mouse prostaglandin E receptor EP₃ subtype. *J. Biol. Chem.* **267**, 6463-6466 (1992).
5. Yang, J., Xia, M., Goetzl, E.J., *et al.* Cloning and expression of the EP₃-subtype of human receptors for prostaglandin E₂. *Biochem. Biophys. Res. Commun.* **198**, 999-1006 (1994).

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