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PRODUCT INFORMATION

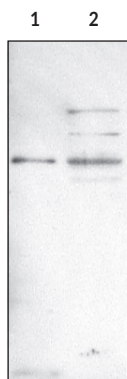


EP₄ Receptor (C-Term) Polyclonal Antibody Item No. 101775

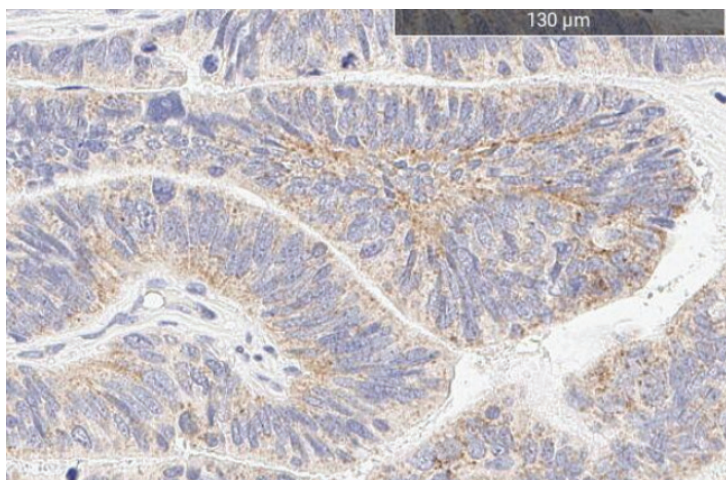
Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	PGE ₂ Receptor 4, Prostaglandin E ₂ Receptor 4
Immunogen:	Synthetic peptide corresponding to the C-terminal region of the human EP ₄ receptor
Cross Reactivity:	(+) EP ₄ receptor; (-) EP ₁ , EP ₂ , and EP ₃ receptors
Species Reactivity:	(+) Human, ovine, and rat; other species not tested
Uniprot No.:	P35408
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution for IHC is 1:80 and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: EP₄ transfectant cell microsomes (5 µg)
Lane 2: Human Jurkat lysate (30 µg)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human prostate adenocarcinoma after heat-induced antigen retrieval in pH 6.0 citrate buffer. After incubation with EP₄ Receptor (C-Term) Polyclonal Antibody (Item No. 101775), at a 1:80 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
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PRODUCT INFORMATION



Description

Prostaglandin E₂ (PGE₂) binds to four receptor subtypes: EP₁, EP₂, EP₃, and EP₄, which are all membrane-bound G protein-coupled receptors (GPCRs).¹⁻³ The EP₄ receptor was originally thought to be a subtype of the EP₂ receptor but was later found to be a distinct receptor with sequence differences.^{4,5} It is expressed in many tissues, including the intestine, heart, kidney, lungs, and brain, and is also expressed in peripheral blood leukocytes and macrophages.³ The EP₄ receptor is coupled to Gα_s, and its activation increases intracellular cAMP levels leading to tissue-specific effects. It induces smooth muscle relaxation, angiogenesis, T cell expansion, osteoblast differentiation, and bone resorption and inhibits TNF-α production in monocytes and macrophages, among other activities. *PTGER4*, the gene encoding the EP₄ receptor, is overexpressed in a variety of cancers, and antagonism of the receptor in animal models inhibits tumor growth and angiogenesis.⁶ In contrast, EP₄ receptor activation has anti-inflammatory and neuroprotective activities *in vitro* and in animal models.^{7,8} Cayman's EP₄ Receptor (C-Term) Polyclonal Antibody can be used for immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB) applications.

References

1. Narumiya, S., Sugimoto, Y., and Ushikubi, F. Prostanoid receptors: Structures, properties, and functions. *Physiol. Rev.* **79(4)**, 1193-1226 (1999).
2. Coleman, R.A., Eglen, R.M., Jones, R.L., *et al.* Classification of prostanoid receptors IUPHAR receptor compendium. *IUPHAR Compendium* 1-12 (1997).
3. Yokoyama, U., Iwatsubo, K., Umemura, M., *et al.* The prostanoid EP4 receptor and its signaling pathway. *Pharmacol. Rev.* **65(3)**, 1010-1052 (2013).
4. Nishigaki, N., Negishi, M., Honda, A., *et al.* Identification of prostaglandin E receptor 'EP₂' cloned from mastocytoma cells as EP₄ subtype. *FEBS Lett.* **364(3)**, 339-341 (1995).
5. Regan, J.W., Bailey, T.J., Pepperl, D.J., *et al.* Cloning of a novel human prostaglandin receptor with characteristics of the pharmacologically defined EP₂ subtype. *Mol. Pharmacol.* **46(2)**, 213-220 (1994).
6. Ching, M.M., Reader, J., and Fulton, A.M. Eicosanoids in cancer: Prostaglandin E₂ receptor 4 in cancer therapeutics and immunotherapy. *Front. Pharmacol.* **11**, 819 (2020).
7. Tang, E.H.C., Libby, P., Vanhoutte, P.M., *et al.* Anti-inflammation therapy by activation of prostaglandin EP4 receptor in cardiovascular and other inflammatory diseases. *J. Cardiovasc. Pharmacol.* **59(2)**, 116-123 (2012).
8. Pradhan, S.S., Salinas, K., Garduno, A.C., *et al.* Anti-inflammatory and neuroprotective effects of PGE₂ EP4 signaling in models of Parkinson's disease. *J. Neuroimmune Pharmacol.* **12(2)**, 292-304 (2017).

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