

PRODUCT INFORMATION



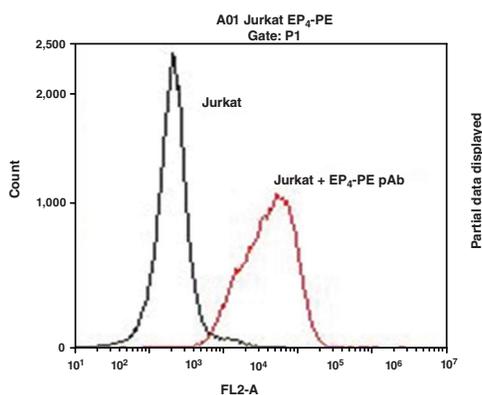
EP4 Receptor (C-Term) Polyclonal PE Antibody

Item No. 10479

Overview and Properties

Contents:	This vial contains 100 μ l of peptide affinity-purified polyclonal antibody conjugated to PE.
Synonym:	Prostaglandin E ₂ Receptor 4
Immunogen:	Synthetic peptide from the C-terminal cytoplasmic region of human EP ₄ receptor
Cross Reactivity:	(-) EP ₁ , EP ₂ , and EP ₃ receptors
Species Reactivity:	(+) Human, mouse, rat, and ovine EP ₄ receptor; other species not tested
Uniprot No.:	P35408
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	\geq 2 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Flow cytometry (FC) and immunofluorescence (IF). The suggested starting dilution for FC and IF is 25 μ l/test. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Jurkat cells stained with 5 μ g/ml of EP₄ Receptor (C-term) Polyclonal Antibody

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

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 classified as the EP₂ receptor but was not activated by the EP₂ agonist butaprost (Item Nos. 13740 | 13741) and 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 PE Antibody can be used for flow cytometry (FC) and immunofluorescence (IF) applications.

References

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