

# PRODUCT INFORMATION



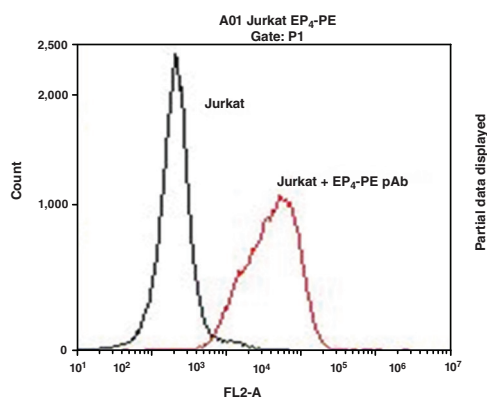
## EP4 Receptor (C-Term) Polyclonal PE Antibody

Item No. 10479

### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl of peptide affinity-purified antibody conjugated to PE.
<b>Synonym:</b>	Prostaglandin E <sub>2</sub> Receptor 4
<b>Immunogen:</b>	Synthetic peptide from the C-terminal cytoplasmic region of human EP <sub>4</sub> receptor
<b>Cross Reactivity:</b>	(-) EP <sub>1</sub> , EP <sub>2</sub> , and EP <sub>3</sub> receptors
<b>Species Reactivity:</b>	(+) Human, mouse, rat, and ovine EP <sub>4</sub> receptor; other species not tested
<b>Uniprot No.:</b>	P35408
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Applications:</b>	Flow cytometry (FC) and immunofluorescence (IF). The suggested starting dilution for FC and IF is 25 µl/test. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Jurkat cells stained with 5 µg/ml of EP<sub>4</sub> 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

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Prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) binds to four receptor subtypes: EP<sub>1</sub>, EP<sub>2</sub>, EP<sub>3</sub>, and EP<sub>4</sub>, which are all membrane-bound G protein-coupled receptors (GPCRs).<sup>1-3</sup> The EP<sub>4</sub> receptor was originally classified as the EP<sub>2</sub> receptor but was not activated by the EP<sub>2</sub> agonist butaprost (Item Nos. 13740 | 13741) and was later found to be a distinct receptor with sequence differences.<sup>4,5</sup> It is expressed in many tissues, including the intestine, heart, kidney, lungs, and brain, and is also expressed in peripheral blood leukocytes and macrophages.<sup>3</sup> The EP<sub>4</sub> receptor is coupled to Gα<sub>s</sub>, 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 EP<sub>4</sub> receptor, is overexpressed in a variety of cancers, and antagonism of the receptor in animal models inhibits tumor growth and angiogenesis.<sup>6</sup> In contrast, EP<sub>4</sub> receptor activation has anti-inflammatory and neuroprotective activities *in vitro* and in animal models.<sup>7-8</sup> Cayman's EP<sub>4</sub> Receptor (C-Term) Polyclonal PE Antibody can be used for flow cytometry (FC) and immunofluorescence (IF) applications.

## References

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