PRODUCT INFORMATION

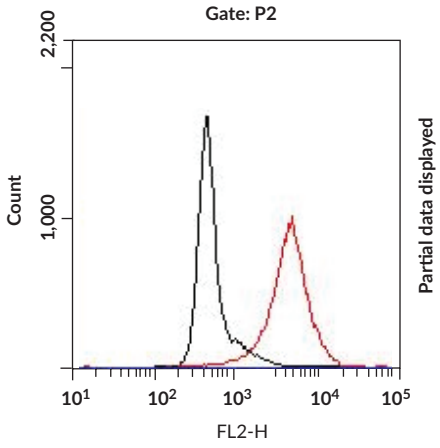
EP_2 Receptor Polyclonal PE Antibody

Item No. 10477

Overview and Properties

Contents:	This vial contains 100 µg of peptide affinity purified, PE labeled polyclonal antibody.
Synonyms:	PGE_2 Receptor 2, Prostaglandin E_2 Receptor 2
Immunogen:	Peptide from the C-terminal region of human EP_2
Cross Reactivity:	(+) Human, mouse, and rat EP_2 receptors; (-) EP_1, EP_3, and EP_4 receptors
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Flow cytometry (FC) and immunocytochemistry (ICC); the recommended starting dilution for FC and ICC is 1:50. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Jurkat cell EP2 receptor detected with anti-EP2: R-phycoerythrin at 4 µg/ml

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Description

This polyclonal antibody is labeled with R-Phycoerythrin (PE) and can be used for immunofluorescent labeling of cellular EP_2 receptor following permeabilization. R-PE absorption maxima occurs at 565>540>498 nm and the emission maximum occurs at 578 nm, however standard excitation by 488 nm lasers is sufficient to generate signal detected in the PE channel of flow cytometers. The biological effects of prostaglandin E_2 (PGE_2) are mediated through interaction with four distinct membrane-bound G-protein coupled EP receptors: EP_1, EP_2, EP_3, and EP_4.[1,2] Binding of PGE_2 to the EP_2 receptor results in an increase in adenylate cyclase activity with a subsequent increase in cAMP.[3,4] Pharmacologically, EP_2 receptors mediate relaxation of smooth muscle and are distinguished from EP_4 receptors by their sensitivity to the EP_2 receptor selective agonist butaprost.[1-3] The human EP_2 receptor is comprised of 358 amino acids with a molecular mass of approximately 40,000.[3] mRNA for the EP_2 receptor is expressed in a variety of tissues including lung, placenta, spleen, intestine, kidney, and sensory neuron.[3-5]

References

1. Coleman, R.A., Smith, W.L., and Narumiya, S. International Union of Pharmacology classification of prostanoid receptors: Properties, distribution, and structure of the receptors and their subtypes. *Pharmacol. Rev.* **46(2)**, 205-229 (1994).
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3. Narko, K., Saukkonen, K., Ketola, I., *et al.* Regulated expression of prostaglandin E_2 receptors EP2 and EP4 in human ovarian granulosa-luteal cells. *J. Clin. Endocrinol. Metab.* **86(4)**, 1765-1768 (2001).
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5. Southall, M.D. and Vasko, M.R. Prostaglandin receptor subtypes, EP3C and EP4, mediate the prostaglandin E_2-induced cAMP production and sensitization of sensory neurons. *J. Biol. Chem.* **276(19)**, 16083-16091 (2001).

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