

PRODUCT INFORMATION

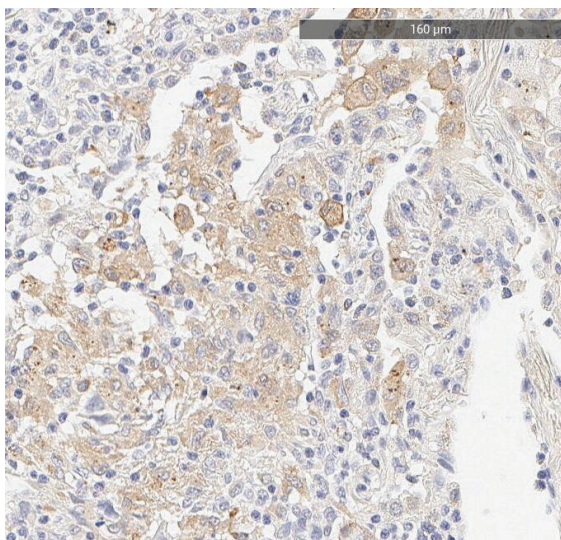
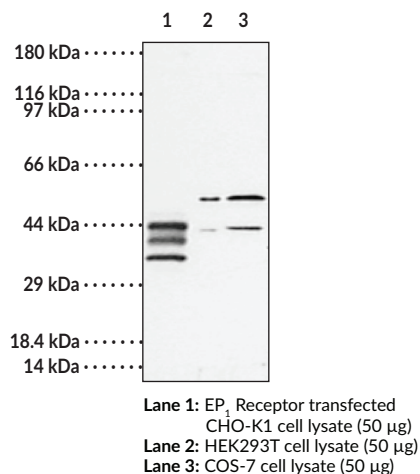


EP₁ Receptor Polyclonal Antibody Item No. 101740

Overview and Properties

Contents:	This vial contains 500 µl peptide affinity-purified antibody.
Synonyms:	PGE ₂ Receptor 1, Prostaglandin E ₂ Receptor 1
Immunogen:	Synthetic peptide from the C-terminal region of human EP ₁
Cross Reactivity:	(-) EP ₂ , EP ₃ , and EP ₄ receptors
Species Reactivity:	(+) Human, mouse, and rat; other species not tested
Uniprot No.:	P34995
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:	Immunofluorescence (IF), Immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human lung tissue after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with EP₁ receptor polyclonal antibody (Item No. 101740) at a 1:200 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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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

The biological effects of PGE₂ are mediated through interaction with four distinct membrane-bound G-protein coupled EP receptors: EP₁, EP₂, EP₃, and EP₄.^{1,2} Binding of PGE₂ to the EP₁ receptor results in an increase in phosphatidyl inositol turnover with subsequent increase in intracellular free Ca²⁺.^{3,4} Pharmacologically, EP₁ receptors mediate contraction of smooth muscle.¹ The human EP₁ receptor is comprised of 402 amino acids with a molecular mass of approximately 42,000.³ The EP₁ receptor is expressed in a variety of tissues, including the kidney, lung, and sensory neuron.³⁻⁵ Within the kidney, the EP₁ receptor is expressed at high levels in the cortical, outer medullary, and inner medullary collecting duct.⁶

References

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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. Funk, C.D., Furci, L., Fitzgerald, G.A., *et al.* Cloning and expression of a cDNA for the human prostaglandin E receptor EP₁ subtype. *J. Biol. Chem.* **268**, 26767-26772 (1993).
4. Honda, A., Sugimoto, Y., Namba, T., *et al.* Cloning and expression of a cDNA for mouse prostaglandin E receptor EP₂ subtype. *J. Biol. Chem.* **268**, 7759-7762 (1993).
5. Southall, M.D. and Vasko, M.R. Prostaglandin receptor subtypes, EP_{3C} and EP₄, mediate the prostaglandin E₂-induced cAMP production and sensitization of sensory neurons. *J. Biol. Chem.* **276**(19), 16083-16091 (2001).
6. Breyer, M.D., Davis, L., Jacobson, H.R., *et al.* Differential localization of prostaglandin E receptor subtypes in human kidney. *Am. J. Physiol.* **270**, F912-F918 (1996).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
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FAX: [734] 971-3640
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WWW.CAYMANCHEM.COM