

# PRODUCT INFORMATION

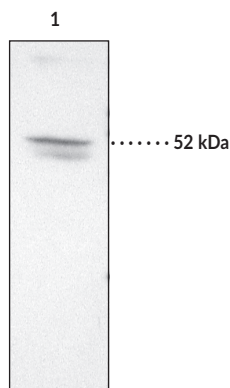


## EP<sub>2</sub> Receptor Polyclonal Antibody Item No. 101750

### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl of peptide affinity-purified antibody.
<b>Synonyms:</b>	PGE <sub>2</sub> Receptor 2, Prostaglandin E <sub>2</sub> Receptor 2
<b>Immunogen:</b>	Synthetic peptide from the C-terminal region of human EP <sub>2</sub> receptor
<b>Cross Reactivity:</b>	(-) EP <sub>1</sub> , EP <sub>3</sub> , and EP <sub>4</sub>
<b>Species Reactivity:</b>	(+) Human, mouse, and rat; other species not tested
<b>Uniprot No.:</b>	P43116
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Applications:</b>	Immunofluorescence (IF) and Western blot (WB); the recommended starting dilution is 1:100 and 1:200, respectively. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Lane 1: Rat sensory neuron (20 µg)

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

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The biological effects of prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) are mediated through interaction with four distinct membrane-bound G-protein coupled EP receptors: EP<sub>1</sub>, EP<sub>2</sub>, EP<sub>3</sub>, and EP<sub>4</sub>.<sup>1,2</sup> Binding of PGE<sub>2</sub> to the EP<sub>2</sub> receptor results in an increase in adenylate cyclase activity with a subsequent increase in cAMP.<sup>3,4</sup> Pharmacologically, EP<sub>2</sub> receptors mediate relaxation of smooth muscle and are distinguished from EP<sub>4</sub> receptors by their sensitivity to the EP<sub>2</sub> receptor selective agonist butaprost.<sup>1-3</sup> The human EP<sub>2</sub> receptor is comprised of 358 amino acids with a molecular mass of approximately 40,000.<sup>3</sup> EP<sub>2</sub> is detected on immunoblot at 65 or 52 kDa depending on the degree of post-translational modifications of that receptor. mRNA for the EP<sub>2</sub> receptor is expressed in a variety of tissues including lung, placenta, spleen, intestine, kidney, and sensory neuron.<sup>3-5</sup>

## References

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1. Coleman, R.A., Smith, W.L., and Narumiya, S. *Pharmacol. Rev.* **46**, 205-229 (1994).
2. Coleman, R.A., Eglen, R.M., Jones, R.L., et al. *IUPHAR Compendium* 1-12 (1997).
3. Regan, J.W., Bailey, T.J., Pepperl, D.J., et al. *Mol. Pharmacol.* **46**, 213-220 (1994).
4. Nemoto, K., Pilbeam, C.C., Bilak, S.R., et al. *Prostaglandins* **54**, 713-725 (1997).
5. Southall, M.D. and Vasko, M.R. *J. Biol. Chem.* **276**, 16083-16091 (2001).

CAYMAN CHEMICAL  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
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[734] 971-3335  
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WWW.CAYMANCHEM.COM