

# PRODUCT INFORMATION

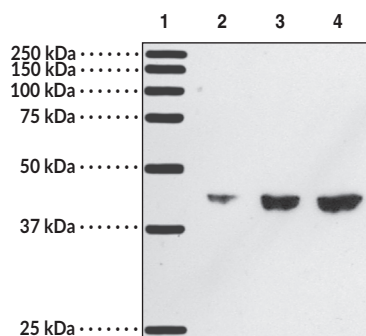


## DP<sub>1</sub> Receptor Polyclonal Antibody Item No. 101640

### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl of peptide-affinity purified antibody.
<b>Synonyms:</b>	PGD <sub>2</sub> Receptor, Prostaglandin D <sub>2</sub> Receptor
<b>Immunogen:</b>	Peptide from the N-terminal region of mouse DP <sub>1</sub> receptor
<b>Cross Reactivity:</b>	(+) DP <sub>1</sub> receptor
<b>Species Reactivity:</b>	(+) Human, mouse, rat
<b>Uniprot No.:</b>	P70263
<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, 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Applications:</b>	Immunofluorescence (IF) and Western blot (WB); the recommended starting dilution is 1:200 for IF and WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Lane 1: Precision Plus Protein Standard  
Lane 2: HT-29 cell lysate (10 µg)  
Lane 3: HT-29 cell lysate (20 µg)  
Lane 4: HT-29 cell lysate (40 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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## Description

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Prostaglandin D<sub>2</sub> (PGD<sub>2</sub>) binds to two receptor subtypes: DP<sub>1</sub> and CRTH<sub>2</sub>/DP<sub>2</sub>, which are both membrane-bound G protein-coupled receptors (GPCRs) but do not have significant homology and are differentially expressed.<sup>1</sup> The DP<sub>1</sub> receptor is expressed in various tissues and cells including the brain, spleen, lungs, bone marrow, stomach, skin, and mast cells.<sup>2-4</sup> It is coupled to Gα<sub>s</sub>, and its activation increases intracellular cAMP levels.<sup>5</sup> Signaling through the DP<sub>1</sub> receptor is involved in inflammation, allergy, and sleep regulation.<sup>1,5</sup> Cayman's DP<sub>1</sub> Receptor Polyclonal Antibody can be used for immunofluorescence (IF) and Western blot (WB) applications. The antibody recognizes the DP<sub>1</sub> receptor at approximately 41 kDa from human, mouse, and rat samples.

## References

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1. Ahmad, A.S., Ottallah, H., Maciel, C.B., *et al.* Role of the L-PGDS-PGD<sub>2</sub>-DP1 receptor axis in sleep regulation and neurologic outcomes. *Sleep* **42(6)**, zsz073 (2019).
2. Hirata, M., Kakizuka, A., Aizawa, M., *et al.* Molecular characterization of a mouse prostaglandin D receptor and functional expression of the cloned gene. *Proc. Nat. Acad. Sci. USA* **91(23)**, 11192-11196 (1994).
3. Boie, Y., Sawyer, N., Slipetz, D.M., *et al.* Molecular cloning and characterization of the human prostanoid DP receptor. *J. Biol. Chem.* **270(32)**, 18910-18916 (1995).
4. Narumiya, S., Sugimoto, Y., and Ushikubi, F. Prostanoid receptors: Structures, properties, and functions. *Physiol. Rev.* **79(4)**, 1193-1226 (1999).
5. Kabashima, K. and Narumiya, S. The DP receptor, allergic inflammation and asthma. *Prostaglandins Leukot. Essent. Fatty Acids* **69(2-3)**, 187-194 (2003).

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