

PRODUCT INFORMATION

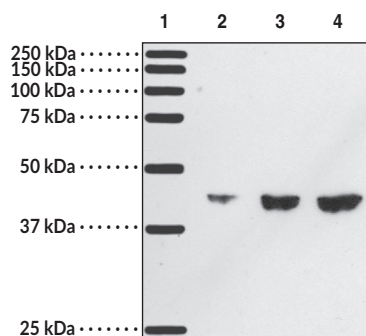


DP₁ Receptor Polyclonal Antibody Item No. 101640

Overview and Properties

Contents:	This vial contains 500 µl of peptide-affinity purified polyclonal antibody.
Synonyms:	PGD ₂ Receptor, Prostaglandin D ₂ Receptor
Immunogen:	Peptide from the N-terminal region of mouse DP ₁ receptor
Cross Reactivity:	(+) DP ₁ receptor
Species Reactivity:	(+) Human, mouse, rat
Uniprot No.:	P70263
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol, 0.02% sodium azide
Host:	Rabbit
Applications:	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

Prostaglandin D₂ (PGD₂) binds to two receptor subtypes: DP₁ and CRTH₂/DP₂, which are both membrane-bound G protein-coupled receptors (GPCRs) but do not have significant homology and are differentially expressed.¹ The DP₁ receptor is expressed in various tissues and cells including the brain, spleen, lungs, bone marrow, stomach, skin, and mast cells.²⁻⁴ It is coupled to Gα_s, and its activation increases intracellular cAMP levels.⁵ Signaling through the DP₁ receptor is involved in inflammation, allergy, and sleep regulation.^{1,5} Cayman's DP₁ Receptor Polyclonal Antibody can be used for immunofluorescence (IF) and Western blot (WB) applications. The antibody recognizes the DP₁ receptor at approximately 41 kDa from human, mouse, and rat samples.

References

1. Ahmad, A.S., Ottallah, H., Maciel, C.B., *et al.* Role of the L-PGDS-PGD₂-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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