PRODUCT INFORMATION

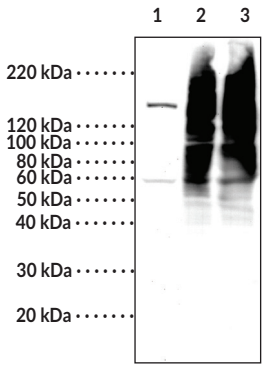
FPR2 (C-Term) Polyclonal Antibody

Item No. 27345

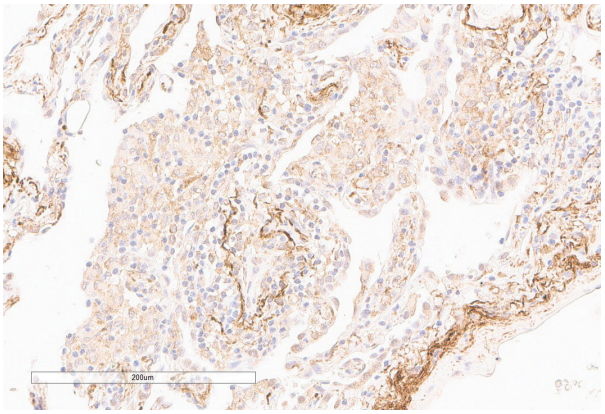
Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	Formyl Peptide Receptor-Like Receptor 1, FPRL1, HM63, Lipoxin A_4 Receptor, N-Formyl Peptide Receptor 2, RFP
Immunogen:	Synthetic peptide from the C-terminal region of human FPR2
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	P25090
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution for IHC and WB is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Control Lysate (25 µg)
Lane 2: FPR2 Overexpression Lysate (12 µg)
Lane 3: FPR2 Overexpression Lysate (25 µg)



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 FPR2 (C-Term) Polyclonal Antibody (Item No. 27345) at a 1:200 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

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Description

Formyl peptide receptor 2 (FPR2) is a G protein-coupled receptor (GPCR).[1] It is encoded by *FPR2* and is expressed in lung, kidney, spleen, placenta, macrophages, peripheral blood leukocytes, synovial fibroblasts, T cells, and intestinal epithelial cells. FPR2 is coupled to the $G_{i/o}$ transduction pathway and is activated by various ligands including formyl peptides from bacteria and mitochondria, endogenous and aspirin-triggered resolvin D1, lipoxin A_4 (Item No. 90410), annexin A1 (Item No. 19881), amyloid-β (1-42) (Aβ42; Item No. 20574), and prion protein (106-126) (Item No. 24556), among others.[1-3] Activation of FPR2 by formylated bacterial peptides increases monocyte chemotaxis and neutrophil recruitment *in vitro*, and *fpr2*$^{-/-}$ mice exhibit increased bacterial load and reduced neutrophil infiltration in response to *L. monocytogenes* infection.[4] FPR2 activation by resolvin D1 (Item No. 10012554) reduces production of pro-inflammatory cytokines and reduces inflammatory pain in various murine models.[5] Expression of *FPR2* is increased in mononuclear phagocytes in postmortem brain tissue from patients with Alzheimer's disease and transient interaction of Aβ42 with FPR2 promotes receptor complex internalization and cytosolic deposition of Aβ42 in macrophages.[6] Cayman's FPR2 (C-Term) Polyclonal Antibody can be used for Western blot and immunohistochemistry (IHC) applications. The antibody recognizes the C-terminus of FPR2 from human samples.

References

1. Bäck, M., Powell, W.S., Dahlén, S.E., *et al.* Update on leukotriene, lipoxin and oxoeicosanoid receptors: IUPHAR Review 7. *Br. J. Pharmacol.* **171(15)**, 3551-3574 (2014).
2. Cattaneo, F., Parisi, M., and Ammendola, R. Distinct signaling cascades elicited by different formyl peptide receptor 2 (FPR2) agonists. *Int. J. Mol. Sci.* **14(4)**, 7193-7230 (2013).
3. He, H.-Q. and Ye, R.-D. The formyl peptide receptors: Diversity of ligands and mechanism for recognition. *Molecules* **22(3)**, E455 (2017).
4. Alessi, M.C., Cenac, N., Si-Tahar, M., *et al.* FPR2: A novel promising target for the treatment of influenza. *Front. Microbiol.* **8:1719** (2017).
5. Zhang, L.-Y., Liu, Z.-H., Zhu, Q., *et al.* Resolvin D2 relieving radicular pain is associated with regulation of inflammatory mediators, Akt/GSK-3β signal pathway and GPR18. *Neurochem. Res.* **43(12)**, 2384-2392 (2018).
6. Iribarren, P., Zhou, Y., Hu, J., *et al.* Role of formyl peptide receptor-like 1 (FPRL1/FPR2) in mononuclear phagocyte responses in Alzheimer disease. *Immunol. Res.* **31(3)**, 165-176 (2005).

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