

PRODUCT INFORMATION



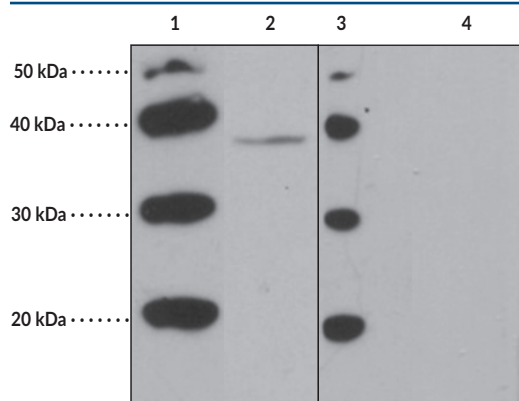
FFAR2 (GPR43) (Internal) Polyclonal Antibody

Item No. 15727

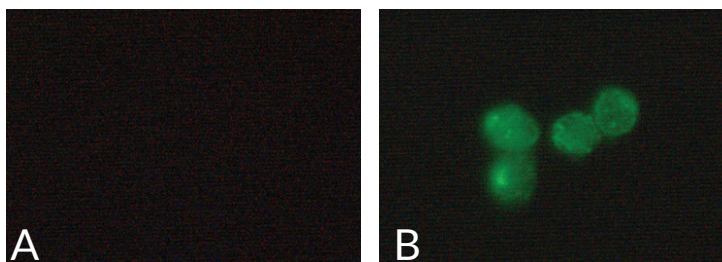
Overview and Properties

Contents: This vial contains peptide affinity-purified polyclonal antibody
Synonyms: Free Fatty Acid Receptor 2, G Protein-Coupled Receptor 43
Immunogen: Peptide from the internal region of human GPR43
Species Reactivity: (+) Human
Uniprot No.: O15552
Form: Lyophilized
Storage: -20°C (as supplied)
Stability: ≥3 years
Storage Buffer: TBS, pH 7.4, with 5 mg/ml BSA when reconstituted in 500 µl of deionized water
Applications: Flow cytometry (FC), immunofluorescence (IF), and western blot (WB); the recommended starting dilution for FC and IF is 1:100 and 1:200 for WB. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

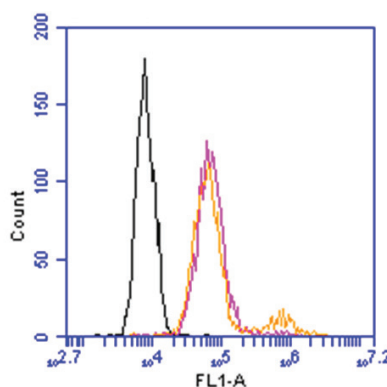
Images



Lane 1: MW Markers
Lane 2: LoVo cell lysates (40 µg)
Lane 3: MW Markers
Lane 4: LoVo cell lysates (40 µg) + 10 µg/ml immunizing peptide



LoVo cells probed with A) Goat Anti-Rabbit IgG FITC (Item No. 10006588) (1:200)
B) GPR43 (Internal) Polyclonal Antibody (10 µg/ml) + Goat Anti-Rabbit IgG FITC (1:200)



Black: Goat Anti-Rabbit IgG FITC (Item No. 10006588)
Orange: GPR43 (Internal) Polyclonal Antibody (5 µg/ml)
Fuchsia: GPR43 (Internal) Polyclonal Antibody (10 µg/ml)

LoVo cells were fixed with 4% formaldehyde and blocked with 5% normal goat serum. Samples were gated to exclude debris. Fluorescein fluorescence was detected in the FL1 channel of an Accuri C6 flow cytometer. Immune complexes were detected with Cayman's Goat Anti-Rabbit IgG FITC (Item No. 10006588) at 1:200.

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

GPR43 is a G protein-coupled receptor activated by short chain fatty acids (SCFAs).¹⁻³ Several SCFAs have the potential to bind and activate GPR43, including acetate, formate, propionate, and butyrate.² GPR43 couples through the Pertussis toxin-sensitive $G_{i/o}$ and the pertussis toxin-insensitive G_q protein families and its expression has been described in enteroendocrine cells and neutrophils.²⁻³ The activation of GPR43 induces an increase in intracellular Ca^{2+} , ERK1/2 activation, and a decrease in intracellular cAMP.¹⁻³ Activation of GPR43 may be involved in intestinal inflammation. The predicted size of GPR43 is 37 kDa. Cayman's GPR43 (Internal) Polyclonal Antibody detects a 37 kDa band in cell lysates.

References

1. Tazoe, H., Otomo, Y., Kaji, I., *et al.* Roles of short-chain fatty acids receptors, GPR41 and GPR43 on colonic functions. *J. Physiol. Pharmacol.* **59(Suppl 2)**, 251-262 (2008).
2. Brown, A.J., Goldsworthy, S.M., Barnes, A.A., *et al.* The orphan G protein-coupled receptors GPR41 and GPR43 are activated by propionate and other short chain carboxylic acids. *J. Biol. Chem.* **278(13)**, 11312-11319 (2003).
3. Le Poul, E., Loison, C., Struyf, S., *et al.* Functional characterization of human receptors for short chain fatty acids and their role in polymorphonuclear cell activation. *J. Biol. Chem.* **278(28)**, 25481-25491 (2003).

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