

PRODUCT INFORMATION



FFAR3 (GPR41) (C-Term) Polyclonal Antibody

Item No. 15726

Overview and Properties

Contents: This vial contains peptide affinity-purified polyclonal antibody.

Synonyms: Free Fatty Acid Receptor 3, G Protein-Coupled Receptor 41

Immunogen: Peptide from the C-terminal region of human GPR41

Species Reactivity: (+) Human; other species not tested

Uniprot No.: O14843

Form: Lyophilized

Storage: -20°C (as supplied)

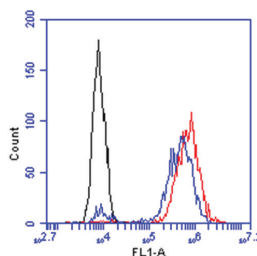
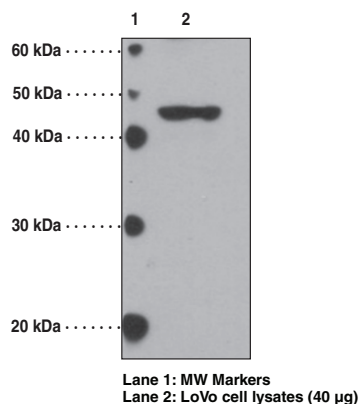
Stability: ≥3 years

Storage Buffer: TBS, pH 7.4, with 5 mg/ml BSA when reconstituted in 500 µl deionized water

Host: Rabbit

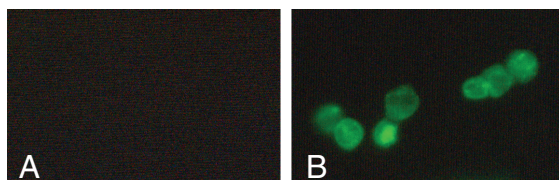
Applications: Flow cytometry (FC), immunofluorescence (IF), and Western blot (WB); the recommended starting dilution for FC and IF is 1:100 and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Black: Goat Anti-Rabbit IgG FITC (Item No. 10006588)
Blue: FFAR3 (GPR41) (C-Term) Polyclonal Antibody (5 µg/ml)
Red: FFAR3 (GPR41) (C-Term) 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.



LoVo cells probed with A) Goat Anti-Rabbit IgG FITC (Item No. 10006588) (1:200) B) FFAR3 (GPR41) (C-Term) Polyclonal Antibody (5 µg/ml) + Goat Anti-Rabbit IgG FITC (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.

Copyright Cayman Chemical Company, 11/13/2023

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

PRODUCT INFORMATION



Description

GPR41 is a G protein-coupled receptor activated by short chain fatty acids (SCFAs).¹⁻³ Several SCFAs have the potential to bind and activate GPR41, with pentanoate being the most potent agonist.² GPR41 couples through the Pertussis toxin-sensitive G_{i/o} family and its expression has been described in adipose tissue and the colonic lumen.¹⁻³ The activation of GPR41 induces an increase in intracellular Ca²⁺, ERK1/2 activation, and a decrease in intracellular cAMP.¹⁻³ Activation of GPR41 may be involved in intestinal inflammation. The predicted size for GPR41 is 39 kDa. Cayman's GPR41 (C-term) Polyclonal Antibody detects a 43 kDa band by WB 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).

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