PRODUCT INFORMATION

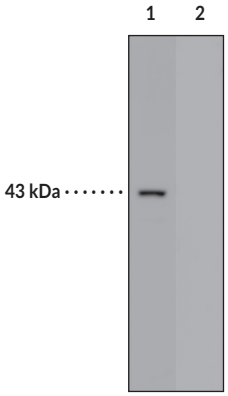
FFAR4 (GPR120) (C-Term) Polyclonal Antibody

Item No. 14265

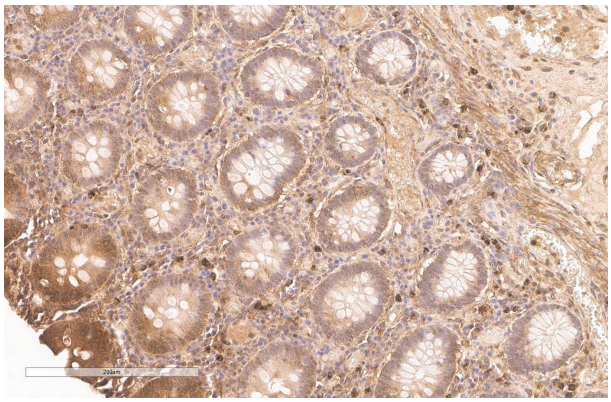
Overview and Properties

Contents:	This vial contains peptide affinity-purified polyclonal antibody
Synonyms:	Free Fatty Acid Receptor 4, GPCR129, G Protein-Coupled Receptor 120, GT01, O3FAR1, PGR4
Immunogen:	Synthetic peptide from the C-terminal region of human FFAR4
Species Reactivity:	(+) Human, other species not tested
Uniprot No.:	Q5NUL3
Form:	Lyophilized
Storage:	-20°C (as supplied)
Stability:	≥3 Years
Storage Buffer:	TBS, pH 7.4 when reconstituted in 500 µl deionized water
Host:	Rabbit
Applications:	ELISA, Immunocytochemistry (ICC), Immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for ELISA is 1:500-1:2,000, 1:100-1:200 for ICC, and 1:200 for IHC and WB. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Images



Lane 1: LoVo cell lysates (50 µg)
Lane 2: LoVo cell lysates treated with immunizing peptide (50 µg)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human colon tissue after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with FFAR4 (GPR120) (C-Term) Polyclonal Antibody (Item No. 14265) 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

G Protein-Coupled Receptor 120 (GPR120) is a GPCR activated by the presence of long chain free fatty acids and is expressed in adipocytes and pro-inflammatory macrophages.[1] The activation of GPR120 results in elevated Ca^{2+} and activation of the ERK cascade.[1] ω-3 Fatty acid constituents such as DHA and EPA mediate GPR120 signaling resulting in inhibition of TLR and TNF-α inflammatory signaling pathways in a β-arrestin2/TAB1 dependent manner.[2] The anti-inflammatory effects of GPR120 are indirectly involved in promoting insulin secretion and free fatty acid-induced inhibition of apoptosis.[1] The predicted size for GPR120 is 42.2 kDa and the observed detection is approximately 43 kDa by Western blot.

References

1. Katsuma, S., Hatae, N., Yano, T., *et al*. Free fatty acids inhibit serum deprivation-induced apoptosis through GPR120 in a murine enteroendocrine cell line STC-1. *J. Biol. Chem.* **280(20)**, 19507-19515 (2005).
2. Oh, D.Y., Talukdar, S., Bae, E.J., *et al*. GPR120 is an omega-3 fatty acid receptor mediating potent anti-inflammatory and insulin sensitizing effects. *Cell* **142(5)**, 687-698 (2010).

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