Datasheet for ABIN7043397

anti-O3FAR1 antibody (Extracellular)

4 Images

Go to Product page

Overview

Quantity:	50 µL
Target:	O3FAR1
Binding Specificity:	AA 22-36, Extracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This O3FAR1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (Cultured Cells) (IF (cc)), Immunohistochemistry (IHC), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Free Fatty Acid Receptor 4 (GPR120)
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)RTHFPFFSDVKGDHR, corresponding to amino acid residues 22-36 of mouse FFAR4
Isotype:	IgG
Specificity:	Extracellular, N-terminus
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Rat - identical, human - 14,15 amino acid residues identical
Characteristics:	Anti-GPR120/FFAR4 (extracellular) Antibody (ABIN7043397, ABIN7044281 and ABIN7044282))

Product Details

	is a highly specific antibody directed against an epitope of the mouse Free fatty acid receptor 4. The antibody can be used in western blot and indirect live cell flow cytometry. It has been designed to recognize FFAR4 from rat, mouse, and human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	O3FAR1
Alternative Name:	FFAR4 (O3FAR1 Products)
Background:	G-protein coupled receptor 120, Free fatty acid receptor 4, FFA4 Receptor, G-protein coupled receptor GT01, Omega-3 fatty acid receptor 1, O3far1,Free fatty acid receptor 4 (FFAR4, GPR120), is a member of the rhodopsin family of 7-transmembrane domain G-protein coupled receptors (GPCRs). GPR120/FFAR4 is activated by long chain fatty acids. The protein is a potential therapeutic target for the treatment of type 2 diabetes mellitus (T2DM). GPR120 is associated to insulin sensitizing, anti-inflammatory, and fat metabolism. Evidence shows that GPR120 may be involved in the development of obesity in mice and humans1-4. GPR120 regulates various physiological processes, including gut hormone secretion, islet function, osteoclastogenesis, anti-inflammation, and adipogenesis2-4.GPR120 binds to omega-3 fatty acids and stabilizes the metabolic homeostasis through a cascade of physiological activities. GPR120 exerts its physiological effects through one of two pathways that involves either Gαq or β-arrestin2,3.GPR120 has been shown to be ubiquitously expressed and is primarily detected in the intestine, adipocytes, and pro-inflammatory macrophages1,2. Alternative names: GPR120/FFAR4 (extracellular), GPR120, FFA4 Receptor , Free fatty acid receptor 4, Omega-3 fatty acid receptor 1, G-protein coupled receptor 120, G-protein coupled receptor GT01, O3far1
Gene ID:	107221
NCBI Accession:	NM_181745
UniProt:	Q7TMA4
Pathways:	Hormone Transport

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody

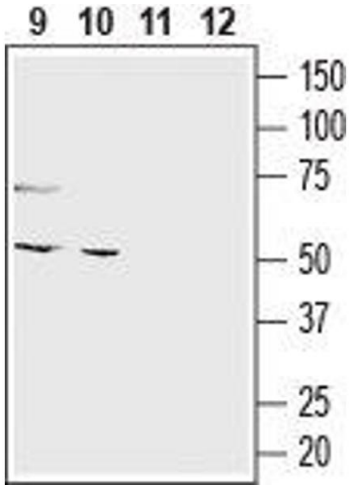
Application Details

	Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:1200 Application Dilutions Western blot wb: 1:200
Comment:	Cited Application: IHC Negative Control: BLP-FR014 Blocking Peptide: BLP-FR014
Restrictions:	For Research Use only

Handling

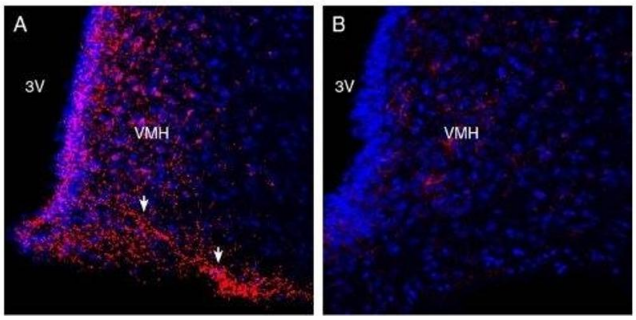
Format:	Lyophilized
Reconstitution:	Recosntitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).

Images



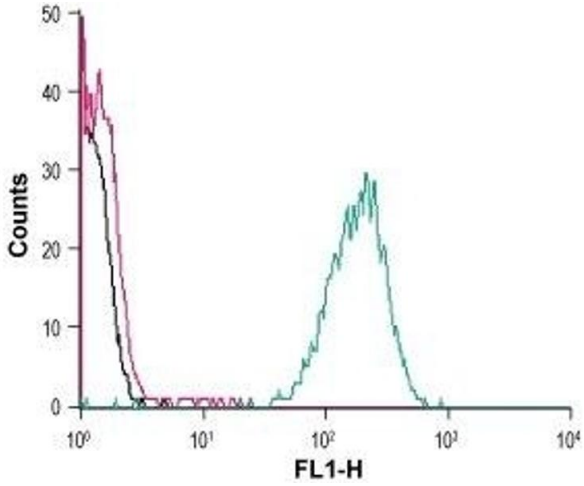
Western Blotting

Image 1. Western blot analysis of mouse colon (lanes 9 and 11) and human colorectal adenocarcinoma (Colo 205) cell line (lanes 10 and 12) lysates: - 9,10. Anti-GPR120/FFAR4 (extracellular) Antibody (ABIN7043397, ABIN7044281 and ABIN7044282), (1:200).11,12. Anti-GPR120/FFAR4 (extracellular) Antibody, preincubated with GPR120/FFAR4 (extracellular) Blocking Peptide (#BLP-FR014).



Immunohistochemistry

Image 2. Expression of FFAR4 in rat hypothalamus. - Immunohistochemical staining of perfusion-fixed frozen rat brain sections with Anti-GPR120/FFAR4 (extracellular) Antibody (ABIN7043397, ABIN7044281 and ABIN7044282), (1:1200), followed by biotinylated donkey anti-rabbit and streptavidin-Cy3. A. FFAR4 immunoreactivity (red) appears in axons beaded with varicosities (arrows). . B. Pre-incubation of the antibody with GPR120/FFAR4 (extracellular) Blocking Peptide (BLP-FR014), suppressed staining. Cell nuclei are stained with DAPI (blue). VMH = ventromedial hypothalamus, 3V = 3rd ventricle



Flow Cytometry

Image 3. Cell surface detection of FFAR4 in live intact human THP-1 monocytic leukemia cells: (black line) Cells.(red line) Cells + goat-anti-rabbit-FITC.(green line) Cells + Anti-GPR120/FFAR4 (extracellular) Antibody (ABIN7043397, ABIN7044281 and ABIN7044282), (2.5 µg/0.5x10^6 cells) + goat anti-rabbit-FITC.

Please check the product details page for more images. Overall 4 images are available for ABIN7043397.