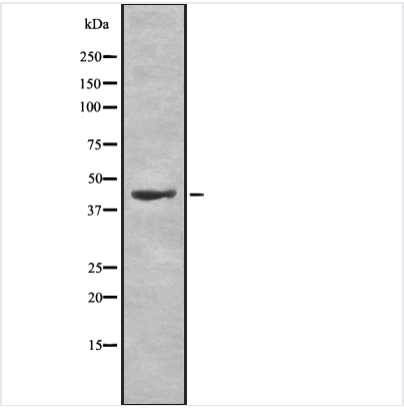
GPR109A/B Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GPR109A/B, Polyclonal Antibody
Full Product Name	GPR109A/B Antibody
Product Gene Name	anti-GPR109A/B antibody
Product Synonym Gene Name	HCAR2
Product Synonym Names	G protein coupled receptor 109A; G protein coupled receptor HM74a; G protein coupled receptor Hm74b; G-protein coupled receptor 109A; G-protein coupled receptor HM74A; G109A_HUMAN; GPR 109A; Gpr109a; GPR109A protein; HCA2; HCAR2; HM 74; HM 74a; HM 74b; Hm74; HM74a; HM74b; hydroxycarboxylic acid receptor 2; Interferon gamma inducible gene Puma g; Niacin receptor 1; NIACR1; Nicotinic acid receptor 1; Nicotinic acid receptor; Protein upregulated in macrophages by IFNG, mouse, homolog of; Puma g; Pumag; rHM74b; G protein coupled receptor 109B; G protein coupled receptor HM74; G protein coupled receptor HM74B; G-protein coupled receptor 109B; G-protein coupled receptor HM74; G-protein coupled receptor HM74B; GPR109B; HCA3; HCAR3; HCAR3_HUMAN; HM74; HM74B; Hydroxycarboxylic acid receptor 3; Niacin receptor 2; NIACR2; Nicotinic acid receptor 2; Puma g; PUMAG
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Concentration	1mg/ml (lot specific)
Specificity	GPR109A/B antibody detects endogenous levels of total GPR109A/B
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	GPR109A/B peptide (MBS9620616) is used for blocking the activity of GPR109A/B antibody (MBS9603139)
Molecular Weight	Observed: 43 kDa Predicted: 42 kDa
3D Structure	ModBase 3D Structure for Q8TDS4
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human GPR109A/B
Subcellular Location	Cell Membrane
Tissue Specificity	Expression largely restricted to adipose tissue and spleen. Expressed on mature neutrophils but not on immature neutrophils or eosinophils.
Conjugation	Unconjugated
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-GPR109A/B antibody	Western Blot (WB), ELISA (EIA)

Application Notes for anti-GPR109A/B antibody	WB: 1:1000-3000
Related Product Information for anti-GPR109A/B antibody	Function: Acts as a high affinity receptor for both nicotinic acid (also known as niacin) and (D)-beta-hydroxybutyrate and mediates increased adiponectin secretion and decreased lipolysis through G(i)-protein-mediated inhibition of adenylyl cyclase. This pharmacological effect requires nicotinic acid doses that are much higher than those provided by a normal diet. Mediates nicotinic acid-induced apoptosis in mature neutrophils. Receptor activation by nicotinic acid results in reduced cAMP levels which may affect activity of cAMP-dependent protein kinase A and phosphorylation of target proteins, leading to neutrophil apoptosis. The rank order of potency for the displacement of nicotinic acid binding is 5-methyl pyrazole-3-carboxylic acid = pyridine-3-acetic acid > acifran > 5-methyl nicotinic acid = acipimox > > nicotinuric acid = nicotinamide. Similarity: Belongs to the G-protein coupled receptor 1 family.
Other Notes	Small volumes of anti-GPR109A/B antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GPR109A/B purchase	MBS9603139 is an antibody targeting GPR109A/B. Also known as GPR109A/B Antibody. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-GPR109A/B antibody
Western blot analysis GPR109A/B using HT-29 whole cell lysates

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GPR109A/B. It may not necessarily be applicable to this product.

NCBI GI #	29171311
NCBI GeneID	338442
NCBI Accession #	NP_808219.1
UniProt Primary Accession #	Q8TDS4
UniProt Secondary Accession #	A0PJL5; A7LGG3
UniProt Related Accession #	Q8TDS4
GenBank Nucleotide #	NM_177551.3
NCBI Official Full Name	hydroxycarboxylic acid receptor 2
NCBI Official Synonym Full Names	hydroxycarboxylic acid receptor 2
NCBI Official Symbol	HCAR2
NCBI Official Synonym Symbols	HCA2; HM74a; HM74b; PUMAG; NIACR1; Puma-g; GPR109A
UniProt Protein Name	Hydroxycarboxylic acid receptor 2
UniProt Synonym Protein Names	G-protein coupled receptor 109A; G-protein coupled receptor HM74A; Niacin receptor 1; Nicotinic acid receptor

UniProt Gene Name	HCAR2
UniProt Synonym Gene Names	GPR109A; HCA2; HM74A; NIACR1
NCBI Protein Information	hydroxycarboxylic acid receptor 2
UniProt Comments for GPR109A/B	Acts as a high affinity receptor for both nicotinic acid (also known as niacin) and (D)-beta-hydroxybutyrate and mediates increased adiponectin secretion and decreased lipolysis through G(i)-protein-mediated inhibition of adenylyl cyclase. This pharmacological effect requires nicotinic acid doses that are much higher than those provided by a normal diet. Mediates nicotinic acid-induced apoptosis in mature neutrophils. Receptor activation by nicotinic acid results in reduced cAMP levels which may affect activity of cAMP-dependent protein kinase A and phosphorylation of target proteins, leading to neutrophil apoptosis. The rank order of potency for the displacement of nicotinic acid binding is 5-methyl pyrazole-3-carboxylic acid = pyridine-3-acetic acid > acifran > 5-methyl nicotinic acid = acipimox >> nicotinuric acid = nicotinamide.
Research Articles on GPR109A/B	**1.** GPR109A may inhibit inflammatory cytokine production, induced by palmitic acid, by MIN6 cells possibly via inhibiting the Akt/mTOR signaling pathway.
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