GPR109A Blocking Peptide – >85% Purity

PRODUCT OVERVIEW

Product Name	GPR109A (HCAR2), Blocking Peptide
Full Product Name	GPR109A Blocking Peptide
Product Gene Name	HCAR2 blocking peptide
Product Synonym Names	HCAR2; GPR109A; HCA2; HM74A; NIACR1; Hydroxycarboxylic acid receptor 2; G-protein coupled receptor 109A; G-protein coupled receptor HM74A; Niacin receptor 1; Nicotinic acid receptor
Host	Synthetic
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized Powder
Purity/Purification	>85%
Preparation and Storage	Store at -20 degree C for one year.
Molecular Weight	41,850 Da
Quality Control	The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry.
Directions for Use	Blocking Peptide to the diluted primary antibody in a molar ratio of 10:1 (peptide to antibody) and incubate the mixture at 4 degree C for overnight or at room temperature for 2 hours.
Applications Tested/Suitable for HCAR2 blocking peptide	Blocking (BL)
Related Product Information for HCAR2 blocking peptide	MBS8309512 is a blocking peptide targeting HCAR2. Also known as GPR109A Blocking Peptide. Reactive in Human, Mouse, Rat. Host: Synthetic. The peptide is used to block Anti-GPR109A Antibody reactivity.
Other Notes	Small volumes of HCAR2 blocking peptide 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HCAR2. It may not necessarily be applicable to this product.

NCBI GI #	152112976
NCBI GeneID	338442
NCBI Accession #	ABS29270.1
UniProt Primary Accession #	Q8TDS4
UniProt Secondary Accession #	Q9EP66; Q80Z39
UniProt Related Accession #	Q8TDS4
NCBI Official Full Name	G protein-coupled receptor 109A
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
Protein Family	Hydroxycarboxylic acid receptor
UniProt Gene Name	HCAR2
UniProt Synonym Gene Names	GPR109A; HCA2; HM74A; NIACR1
NCBI Protein Information	hydroxycarboxylic acid receptor 2
UniProt Comments for HCAR2	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 HCAR2	**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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