



Anti-Putative chemokine receptor (HM74), Rabbit-Polyclonal Antibody

Catalog No. GB-30097

Antigen species: Human

Host species: Rabbit

Quantity: 100 μ g

Reactivity: Human

Form: Peptide affinity purified antibody

Applications: ELISA

Target description

Tunaru et al. (2003) showed that HM74 (GPR109B) is highly expressed in adipose tissue and is a nicotinic acid receptor. Binding of nicotinic acid to PUMA-G, the mouse ortholog, or to HM74, resulted in a G protein-mediated decrease in cAMP levels.

Nicotinic acid has been used for decades as a lipid-lowering agent; Wise et al. (2003) and Tunaru et al. (2003) identified a G protein-coupled receptor that is highly expressed in adipose tissue and to which nicotinic acid is a high affinity ligand, thus identifying the cellular mechanism by which nicotinic acid exerts its main effect (i.e., suppression of lipolysis from adipose tissue). Karpe and Frayn (2004) discussed the implications of these findings and suggested that research on signaling through the nicotinic acid receptor might give rise to novel and more effective methods to interfere with fatty acid metabolism and a mechanism for the treatment of hyperlipidemia and possibly insulin-resistant states.

Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide located on the putative extracellular domain of human putative chemokine receptor protein.

Application

The antibody titer is more than 100K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/5,000 dilution for ELISA, 1/1000 dilution for Western blot analysis (WB) of recombinant protein, 1/400 dilution for tissue extracts or cell lysates, 1/100 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-guanine nucleotide binding protein (G protein), α polypeptide (GNAQ), pAb (GB-30070)
2. Anti-luteinizing hormone/choriogonadotropin receptor (LHCGR), pAb (GB-30071)
3. Anti-adrenergic, beta-1-, receptor (ADRB1) pAb (GB-30072)
4. Anti-adrenergic, beta-2-, receptor, surface (ADRB2) pAb (GB-30073)
5. Anti-angiotensin II receptor, type 1 (AGTR1) pAb (GB-30074)

Ab dilution	Pre-bleed	Purified-Ab
1:10,000	0.054	0.986
1:100,000	0.040	0.181
1:1,000,000	0.035	0.051
Titer		395K

Concentration of test purified pAb is 1.0mg/ml

ELISA Protocol

Antigen is coated on EIA strips at 1 μ g per well. Add 200 μ l of blocking buffer and then wash wells with PBST buffer. Antiserum or peptide specific purified antibody GB-30097 is diluted in series as $10^4 \sim 10^6$ folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650nm. Amount of color is directly proportional to the amount of antibodies. Antibody is positive at >2 folds of ABS of control/Pre-Immune serum.

Storage

It is supplied as peptide affinity purified antibody in lyophilized powder. Redissolve the powder with 100 microliter sterile water will restore to the original concentration 1mg/ml (1 \times PBS). Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

References

1. Tunaru, S., Kero, J., Schaub, A., Wufka, C., Blaukat, A., Pfeffer, K., Offermanns, S. PUMA-G and HM74 are receptors for nicotinic acid mediate its anti-lipolytic effect. *Nature Med.* 9:352-355, 2003.
2. Wise, A., Foord, S. M., Fraser, N. J., et al. Molecular identification of high and low affinity receptors for nicotinic acid. *J. Biol. Chem.* 278:9869-9874, 2003.