



Anti-G protein-coupled receptor 103 (GPR103), Rabbit-Polyclonal Antibody

Catalog No. GB-30112

Antigen species: Human

Host species: Rabbit

Quantity: 100µg

Reactivity: Human

Form: Peptide affinity purified antibody

Applications tested: ELISA

Target description

Orphan G-protein-coupled receptors are a large class of receptors whose cognate ligands are unknown. SP9155 (also referred to as AQ27 and GPR103) is an orphan G-protein-coupled receptor originally cloned from a human brain cDNA library. SP9155 was found to be predominantly expressed in brain, heart, kidney, retina, and testis. Phylogenetic analysis shows that SP9155 shares high homology with Orexin, NPFF, and cholecystokinin (CCK) receptors. From the results of Jiang, Y., et al (3) indicate the existence of a novel RF-amide neuroendocrine peptide system, and suggest that SP9155 is likely the relevant G-protein-coupled receptor for this peptide.

Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide located on the putative extracellular domain of human G protein-coupled receptor 103 (GPR103).

Application

The antibody specificity was assayed by ELISA with the synthetic GPR103 peptide antigen. The antibody titer is more than 1000K 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-GPR125, pAb (GB-10400)

Ab dilution	Pre-bleed	Purified-Ab
1:10K	0.057	1.609
1:100K	0.049	0.563
1:1,000K	0.045	0.110
1:10,000K	0.046	0.053
Titer		~4041K

ELISA Protocol

Antigen is coated on EIA strips at 1µg per well. Add 200µl of blocking buffer and then wash wells with PBST buffer. Antiserum or peptide specific purified antibody GB-30112 is diluted in series as $10^4 \sim 10^7$ folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugated. 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 titer is defined as maximal dilution with >0.1 of ABS of antiserum minus pre-bleed 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×PBS). Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

References

1. Lee, D. K.; Nguyen, T.; Lynch, K. R.; Cheng, R.; Vanti, W. B.; Arkhitko, O.; Lewis, T.; Evans, J. F.; George, S. R.; O'Dowd, B. F. Discovery and mapping of ten novel G protein-coupled receptor genes. *Gene* 275: 83-91, 2001.
2. Fukusumi, S., Yoshida, H., Fujii, R., Maruyama, M., Komatsu, H., Habata, Y., Shintani, Y., Hinuma, S. and Fujino, M. A new peptidic ligand and its receptor regulating adrenal function in rats. *J. Biol. Chem.* 278 (47), 46387-46395 (2003)
3. Jiang, Y., Luo, L., Gustafson, E. L., Yadav, D., Lavery, M., Murgolo, N., Vassileva, G., Zeng, M., Laz, T. M., Behan, J., Qiu, P., Wang, L., Wang, S., Bayne, M., Greene, J., Monsma, F. Jr. and Zhang, F. L. Identification and characterization of a novel RF-amide peptide ligand for orphan G-protein-coupled receptor SP9155. *J. Biol. Chem.* 278 (30), 27652-27657 (2003)