

Product Specification Sheet

Human GPR39 Antibodies

Cat # GPR392-P	Human GPR39 Control/Blocking Peptide	SIZE: 100 µg
Cat # GPR392-A	Rabbit anti-human GPR39 IgG (affinity pure)	SIZE: 100 µg
Cat # GPR392-S	Rabbit anti-human GPR39 antiserum	SIZE: 100 µl

Control of appetite involves a number of gastrointestinal hormones that belong to the ghrelin-motilin ligand family that either stimulate food intake and gastric emptying or inhibit these responses. These hormones have been the focus of intense research in hopes of developing drug therapy for gastrointestinal and eating disorders. **GPR39** is a G protein-coupled receptor (GPCR). It is sequentially distantly related to the growth hormone secretagogue receptor (**ghrelin**) and neurotensin receptors. Its endogenous ligand was unknown until 2005, when an amidated 23-amino acid peptide, obestatin, was found to bind to it specifically. Interestingly, these two peptides appear to have opposite effects. While ghrelin stimulates appetite by acting on its receptor in the arcuate nucleus, obestatin suppresses appetite.

GPR39 mouse: 456aa; human: 453aa –51kDa; Chromosome: 2q21-q22. Expressed in many tissues and brain regions. GPR39 is alternatively spliced. Full length GPR39-1a (456aa in mouse with 7 TM domains) and truncated form (GPR39-1b; 315 aa with 5 TM domains). Quantitative RT-PCR analysis demonstrated that GPR39-1a is expressed selectively throughout the gastrointestinal tract, including the liver and pancreas as well as in the kidney and adipose tissue, whereas the truncated GPR39-1b form has a more broad expression pattern, including the central nervous system but with highest expression in the stomach and small intestine.

Source of Antigen, Antibodies

Antigen	19 - aa peptide of Human GPR392 (Protein accession # O43194 ; ref. 1); designated as GPR392-P control/blocking peptide conjugated to KLH; epitope location ~ N-terminus, Extracellular
Antibody host/type	Rabbit, Polyclonal unpurified antiserum # GPR392-S and aff pure IgG (Cat # GPR392-A), purified over antigen-Agarose
Secondary Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
Negative Control Ab	Non-immune rabbit IgG (Cat # 20009-1) to be used as –ve control for ELISA, WB, IHC etc.

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified, undiluted)
100 ul/vial solution lyophilized powder
contains 0.05% sodium azide
Reconstitute powder in 100 ul PBS.

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in **Buffer:** PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting: 1-10 µg/ml; using affinity pure antibody (chemiluminescence technique).

ELISA: 1:100K; using 50-100 ng control peptide/well.

Histochemistry & Immunofluorescence: Not tested; we recommend the use of affinity purified antibody at 2-10 µg/ml.

Specificity & Cross-reactivity

Human GPR392-P control peptide sequence is conserved in both GPR39-1a and -1b isoforms. It is 78% conserved in rabbit (GPR39). No significant homology exist with mouse or rat GPR39. We recommend using antibody Cat # GPR391-A for mouse or rat GPR39 protein. Antibody cross-reactivity in various species is not known. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity.

General References:

1) Vassiliatis D.K, et al., (2003) Proc. Natl. Acad. Sci. U.S.A. 100:4903-4908.

*This product is for in vitro research use only.

Related material available from ADI

GPR392-S-A-P

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