

Product Specification Sheet

Mouse GPR39 Antibodies

Cat # GPR391-P	Mouse GPR39 Control/Blocking Peptide	SIZE: 100 µg
Cat # GPR391-S	Rabbit anti-mouse GPR39 IgG (affinity pure)	SIZE: 100 µl
Cat # GPR391-A	Rabbit anti-mouse GPR39 IgG (affinity pure)	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) isolated from human genomic libraries. 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. **Obestatin** was found through bioinformatics studies as a peptide, part of the ghrelin precursor. 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.

Source of Antigen, Antibodies

Antigen	17 - aa peptide of Mouse GPR391 (Protein accession # Q5U431 ; ref. 1); designated as GPR391-P control/blocking peptide conjugated to KLH; epitope location ~ N-terminus; Extracellular
Antibody host/type	Rabbit, Polyclonal unpurified serum (Cat # GPR391-S and affinity pure IgG (Cat # GPR391-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

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 vials for less than a week at 4°C.

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

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

Shipping: 4°C 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

Mouse GPR391-P control peptide sequence is 87% homologous to human GPR39 protein sequence. We recommend using antibody Cat # GPR392-A against human 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 (see detailed protocol at the web site).

General References:

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

List of related items, data sheets, and publications, using ADI antibodies is posted on the web site

*This product is for in vitro research use only.

Related material available from ADI

- Antibodies to human, mouse and rat obestatin and Ghrelin and GPR39

GPR391-S-A-P

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