

Product Specification Sheet

**Mouse GPR39 Antibodies**

<b>Cat #</b> GPR391-P	Mouse GPR39 Control/Blocking Peptide	<b>SIZE:</b> 100 µg
<b>Cat #</b> GPR391-S	Rabbit anti-mouse GPR39 IgG (affinity pure)	<b>SIZE:</b> 100 µl
<b>Cat #</b> GPR391-A	Rabbit anti-mouse GPR39 IgG (affinity pure)	<b>SIZE:</b> 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**

<b>Antigen</b>	17 - aa peptide of Mouse GPR391 (Protein accession # <a href="#">Q5U431</a> ; ref. 1); designated as GPR391-P control/blocking peptide conjugated to KLH; epitope location ~ N-terminus; Extracellular
<b>Antibody host/type</b>	Rabbit, Polyclonal unpurified serum (Cat # GPR391-S and affinity pure IgG (Cat # GPR391-A), purified over antigen-Agarose
<b>Secondary Ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>Negative Control Ab</b>	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 4oC.

**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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