ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Obestatin Peptides

Cat. # OBSN25-P-100	Mouse/Rat Obestatin Peptide	**SIZE**: 100 µg
Cat. # OBSN25-P-1000	Mouse/Rat Obestatin Peptide	**SIZE**: 1000 µg

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.

Obestatin, a ghrelin-associated peptide, has recently been discovered by searching for orthologs of the human ghrelin gene and after comparison of preproghrelin sequences from 11 mammalian species. In addition to the known ghrelin peptide, which immediately follows the signal peptide, the researchers identified another conserved region. This region was flanked by a potential convertase cleavage site, which originated a putative 23 amino acid peptide, with a flanking conserved glycine residue at the C-terminal, suggesting that it might be amidated.

Interestingly, **Des 1-10 Obestatin** (C-terminal 11-23 aa) - a truncated peptide of obestatin was shown to have a lower binding affinity to its receptor GPR39 as compared to the full length obestatin. GPR39 mRNA is prominently expressed in the ventral hippocampus, specifically the CA1, which is known to project to the basolateral and basomedial amygdaloid nuclei, which also express GPR39 mRNA. Contextual conditioning is disrupted when any of these nuclei are damaged, indicating that activation of the GPR39 system may modulate this response.

Reports that GPR39 is a cognate receptor for Obestatin were recently contradicted (3, 4) warning for more prudent approach to investigation.

Source of Peptide

Cat #s	• OBSN25-P-100 • OBSN25-P-1000
Sequence	F-N-A-P-F-D-V-G-I-K-L-S-G-A-Q-Y-Q-Q-H-G-R-A-L- NH_2
Identity	Mouse/Rat Obestatin
Location/ length	Full Length; 1-23 aa
Purity	>95%; HPLC Purified
Mol. Wt.	2520.76
Formula	$C_{114}H_{174}N_{34}O_{31}$
Form	Lyophilized Powder
Solubility	Soluble in dH_2O

Storage

Short-term: unopened, undiluted liquid vials for less than a week at 4°C.

Long-term: Store at –20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw or 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

General References:

1. J.V. Zhang, et al., (2005) Science, 310, 996.
2. M. Kojima, et al., (1999) Nature, 402, 656.
3. J.V. Zhang, et al., (2007) Science, 315, 766.
4. N. Chartrel, et al., (2007) Science, 315, 766.

*This product is for In vitro research use only.

Related material available from ADI

Peptides and antibodies to mouse, rat and human Obestatin

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