

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Ghrelin/Obestatin in direct ELISAs and Western blots. In direct ELISAs, approximately 75% cross-reactivity with recombinant mouse Ghrelin/Obestatin is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Ghrelin/Obestatin Gly24-Lys117 (Leu72Met) Accession # Q9UBU3
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

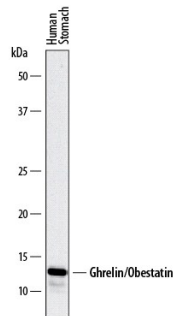
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

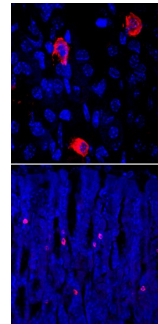
DATA

Western Blot



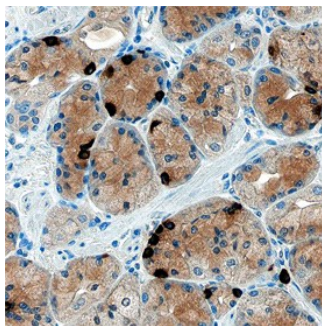
Detection of Human Ghrelin/Obestatin by Western Blot. Western blot shows lysates of human stomach tissue. PVDF membrane was probed with 2 µg/mL of Sheep Anti-Human Ghrelin/Obestatin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8149) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Ghrelin/Obestatin at approximately 13 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



Ghrelin/Obestatin in Mouse Stomach. Ghrelin/Obestatin was detected in immersion fixed frozen sections of mouse stomach using Sheep Anti-Human Ghrelin/Obestatin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8149) at 10 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NLD10) and counterstained with DAPI (blue). Specific staining is shown at both 60x magnification (upper panel) and 20x magnification (lower panel). Staining was localized to cytoplasm and gastric endocrine cells, respectively. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

Immunohistochemistry



Ghrelin/Obestatin in Human Stomach. Ghrelin/Obestatin was detected in immersion fixed paraffin-embedded sections of human stomach using Sheep Anti-Human Ghrelin/Obestatin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8149) at 1 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of gastric mucosa. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

GHRL (Ghrelin/Obestatin Prepropeptide) is a 117 aa precursor peptide that is processed into three chains, Ghrelin-27 (aa 24-50), Ghrelin-28 (aa24-51) and Obestatin (aa76-98). The prepropeptide is cleaved into proGhrelin, and then further processed into mature Ghrelin by prohormone convertases. Mature Ghrelin is modified with an N-octanoyl group on serine 3 which is required for receptor binding. Ghrelin and Obestatin are predominantly synthesized in the gastric mucosa. Ghrelin plays a role in growth factor release and appetite suppression as well as many other functions in a variety of organs. Obestatin is a putative hormone that has been suggested to have opposite effects on growth factor release and appetite as Ghrelin.