ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Leptin/Obese Protein Antibodies

☐	**Cat. #** OB11-P	Mouse Leptin Control/blocking peptide # 1	**SIZE**: 100 ug
☐	**Cat. #** OB11-S	Rabbit Anti-Mouse Leptin peptide antiserum # 1	**SIZE**: 100 ul
☐	**Cat. #** OB11-A	Rabbit Anti-Mouse Leptin peptide IgG # 1, aff pure	**SIZE**: 100 ug

Human Leptin is an 167 Amino acid residue, ~16 kDa, adipocytes derived, secreted protein (1). Mouse Leptin was cloned, expressed in E. Coli and purified. The purity of Leptin is greater than 95% as determined by SDS-PAGE. The identity of protein has been confirmed by N-Terminal sequence analyses. Endotoxin level in the final preparation is less than 1 pg/μg of murine Leptin. Mouse leptin is about 85% homologous with human Leptin. Purified Mouse Leptin has been shown to be biologically active in reducing body weight, food consumption, and plasma glucose levels in ob/ob and NZO mice.

FUNCTION: May function as part of a signaling pathway that acts to regulate the size of the body fat depot. An increase in the level of LEP may act directly or indirectly on the CNS to inhibit food intake and/or regulate energy expenditure as part of a homeostatic mechanism to maintain constancy of the adipose mass.
SUBCELLULAR LOCATION: Secreted (Probable).
SIMILARITY: Belongs to the leptin family.
Protein name Leptin [Precursor]
Synonym Obesity factor
Gene name Name: Lep; Synonyms: Ob

Source of Antigen and Antibodies

Antigen	12-aa peptide sequence of mouse (protein accession #P41160 , refs 1) (**designated OB11-P, control peptide)** conjugated to KLH;
Ab Host/type	Rabbit, polyclonal Aff pure IgG1 (**cat #OB11-A**) purified over the antigen column
2-ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
☐ 100ul ☐ solution ☐ lyophilized
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

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

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

Storage

Short-term: unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°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 (1:1K-5K using neat serum or 1-10 ug/ml for affinity Pure Antibodies) with Chemiluminescence technique. The obese protein is predicted to be secretory protein with a molecular weight of ~ 16 kDa (refs. 1, 2).

ELISA (1:10-50K; 10-100 ng of control peptide or Leptin protein/well).

Specificity & Cross-reactivity

The anti-OB11 reacts with both mouse and human leptin/obese proteins (cat # LEP11-C and LEP12-C) in both native samples by dot blot and denatured and reduced samples by Western Blots (sensitivity of about 1-5 ng by Chemiluminescent detection). 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:
Zhang, Y et al. (1994) Nature 372, 425-432
Halaas, JL (1995) Science 269, 543-546

This product is for In vitro research use only. NOT FOR DRUG USE.

Related material available from ADI

Mouse Recombinant Leptin (Obese Protein), Leptin receptor antibodies

OB11-S-A-P 170320SV

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