

Product Specification Sheet

**Leptin/Obese Protein Antibodies**

<b>Cat. #</b> OB11-P	Mouse OB11 control/blocking peptide # 1	<b>SIZE:</b> 100 ug
<b>Cat. #</b> OB11-S	Rabbit Anti-Mouse OB11 antiserum # 1	<b>SIZE:</b> 100 ul
<b>Cat. #</b> OB11-A	Rabbit Anti-Mouse OB11 IgG # 1, Aff pure	<b>SIZE:</b> 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**

<b>Antigen</b>	12-aa peptide sequence of mouse (protein accession #P41160 , refs 1) ( <b>designated OB11-P, control peptide</b> ) conjugated to KLH;
<b>Ab Host/type</b>	Rabbit, polyclonal Aff pure IgG1 ( <b>cat #OB11-A</b> ) purified over the antigen column
<b>2-ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available
<b>-ve control</b>	# 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 powder  
Supplied in Buffer: 0.05% azide  
**Reconstitute** powder in 100 ul PBS

**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 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 rev 40130S

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