

# Leptin (mouse), ELISA kit

The Leptin (mouse), ELISA kit is a colorimetric immunometric enzyme immunoassay kit

The Leptin (mouse), EIA kit is a colorimetric immunometric enzyme immunoassay kit with results in 3 hours. Absorbance is read at 450 nm. The broad dynamic range is suitable for many normal and pathological samples with sensitive quantification of < 26 pg/mL mouse leptin.

The adipokine leptin is a hormone secreted predominantly by adipose tissue that signals through leptin receptors in the hypothalamus to decrease appetite and increase energy expenditure. Binding of leptin to the long-form of the leptin receptor in the hypothalamus reduces neuropeptide Y (NPY) and agouti-related protein (AgRP) activity, while stimulating anorexigenic pro-opiomelanocortin (POMC) neuron activity to reduce appetite. In peripheral tissues, leptin antagonizes insulin signaling, increases fatty acid oxidation, decreases insulin production in pancreatic  $\beta$  cells, and promotes fertility. Its expression in adipocytes can be regulated in a paracrine fashion by other adipokines such as IL-6 (stimulation) and TNF- $\alpha$  (inhibition).

Leptin deficient mice display severe insulin resistance, obesity, and decreased fertility, all of which are reversible by administration of exogenous leptin. In contrast, elevated circulating levels of leptin are associated with increased obesity, indicative of an acclimated state of leptin resistance which is not well understood. Evidence also links leptin to cardiovascular disease, as it mediates numerous pro-inflammatory and pro-atherogenic effects such as increased endothelin-1 (ET-1) expression, accumulation of reactive oxygen species (ROS), secretion of monocyte chemoattractant protein-1 (MCP-1), and increased sympathetic vascular tone and blood pressure.

Citations: 30

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## Ordering Information

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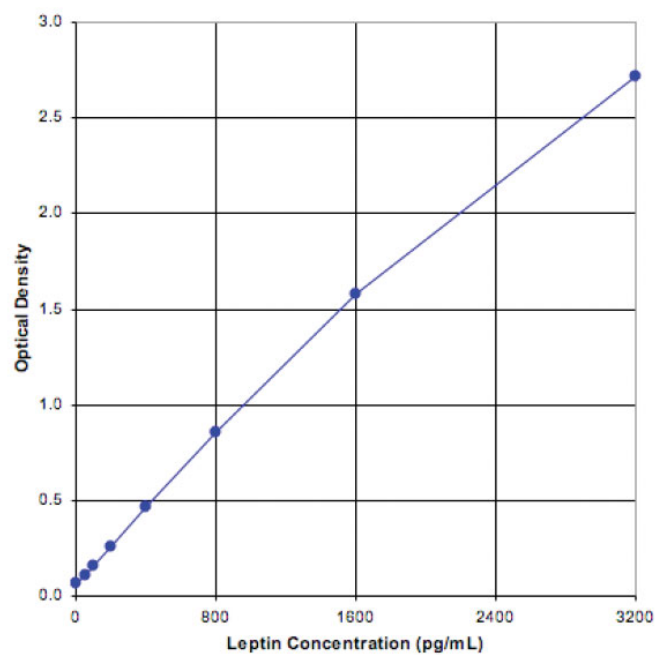
ADI-900-019A

96 wells

## Manuals, SDS & CofA

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- Flexible - broad dynamic range suitable for many normal and pathological samples
- Sensitive - measure < 26 pg/ml mouse leptin
- Fast - fully quantitative results in just 3 hours from up to 39 samples in duplicate
- Pre-coated plates and ready-to-use reagents save you time



## Handling & Storage

Long Term Storage +4°C

Shipping Blue Ice

## Regulatory Status RUO - Research Use Only

## Product Details

Alternative Name OB gene product

Application Colorimetric detection, ELISA

Application Notes For the quantitative determination of mouse leptin in culture supernatants, plasma, and serum. Cited sample type includes tissue.

Assay Time 3 hours

Compatibility This product is compatible with the [Absorbance 96 Plate Reader](#).

Contents Microtiter plate, Standard, Antibody, Conjugate, Assay buffer 28, TMB Substrate, Stop solution 2, Wash buffer concentrate

Sensitivity 25.4 pg/ml (range 50 – 3,200 pg/ml)

Species Reactivity Mouse

Technical Info / Product Notes **Cited samples:**  
[Cytokine ELISAs Cited Samples](#)

UniProt ID P41160

Wavelength 450 nm

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