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 β 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-α (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.

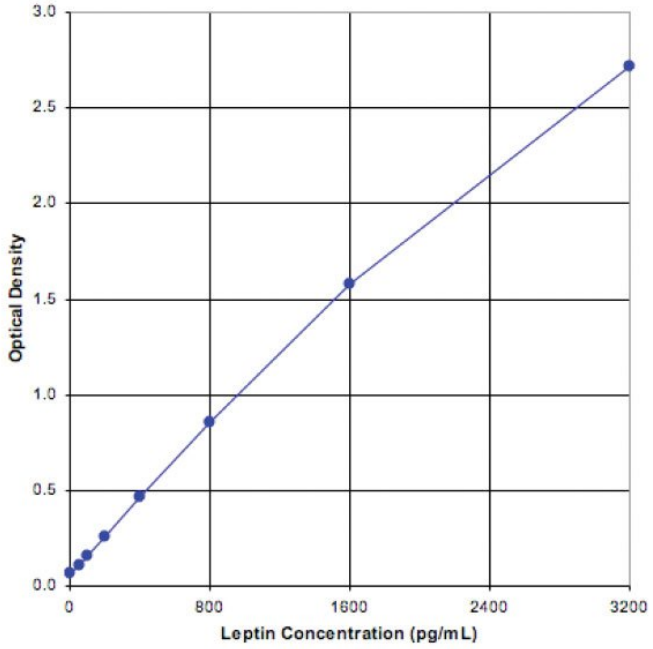
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ADI-900-019A	96 wells

Manuals, SDS & CofA View Online »

- 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


3.0
2.5
2.0
1.5
1.0
0.5
0.0
Optical Density
0
800
1600
2400
3200
Leptin Concentration (pg/mL)

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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ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES (ELS) AG
Phone: +41 61 926 8989
info-eu@enzolifesciences.com

Belgium, The Netherlands & Luxembourg
Phone: +32 3 466 0420
info-be@enzolifesciences.com

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

UK & Ireland
Phone (UK customers): 0845 601 1488
Phone: +44 1392 825900
info-uk@enzolifesciences.com

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