

Polyclonal Anti- Leptin Receptor Picoband™ Antibody

Catalog Number: PB9056

Description

Gene Name	leptin receptor
Recommended Protein Name	Leptin receptor
Lot No.	0901412Da825677
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human
Immunogen	E.coli-derived human Leptin Receptor recombinant protein (Position: R465-D839). Human Leptin Receptor shares 81% and 82% amino acid (aa) sequences identity with mouse and rat Leptin Receptor, respectively.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .

Application

	Concentration	Tested Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	-

WB: The detection limit for Leptin Receptor is approximately 0.5ng/lane under reducing conditions.

Tested Species: In-house tested species with positive results.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage: At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

Background

Leptin receptor (or Obese receptor, OBR) is a single membrane-spanning receptor most related to the gp130 signal-transducing component of the IL-6 receptor, the G-CSF receptor, and the LIF receptor. OB-R mRNA is expressed not only in choroid plexus, but also in several other tissues, including hypothalamus. Leptin acts through the leptin receptor, a single-transmembrane domain receptor of the cytokine-receptor family. Leptin controls energy balance and food intake through the leptin receptor in the hypothalamus of the brain, which suggests that some polymorphisms of the leptin receptor gene (LEPR) might contribute to obesity or obesity-related diseases. Leptin is also involved in the regulation of blood pressure through the leptin receptor.

Reference

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2. Clement, K.; Vaisse, C.; Lahlou, N.; Cabrol, S.; Pelloux, V.; Cassuto, D.; Gormelen, M.; Dina, C.; Chambaz, J.; Lacorte, J.-M.; Basdevant, A.; Bougneres, P.; Lebouc, Y.; Froguel, P.; Guy-Grand, B. A mutation in the human leptin receptor gene causes obesity and pituitary dysfunction. *Nature* 392: 398-401, 1998.
3. Park, K. S.; Shin, H. D.; Park, B. L.; Cheong, H. S.; Cho, Y. M.; Lee, H. K.; Lee, J.-Y.; Lee, J.-K.; Oh, B.; Kimm, K. Polymorphisms in the leptin receptor (LEPR)--putative association with obesity and T2DM. *J. Hum. Genet.* 51: 85-91, 2006.
4. Rosmond, R.; Chagnon, Y. C.; Holm, G.; Chagnon, M.; Perusse, L.; Lindell, K.; Carlsson, B.; Bouchard, C.; Bjorntorp, P. Hypertension in obesity and the leptin receptor gene locus. *J. Clin. Endocr. Metab.* 85: 3126-3131, 2000.