

Recombinant Rat Leptin Antagonist Triple Mutant (Leptin Rat) - Purified

Catalog No.:	PA1120X
Quantity:	0.1 mg
Species:	Rat
Source:	<i>E. coli</i> , <i>Escherichia coli</i>
Format:	State: Lyophilized (sterile filtered) white freeze-dried powder. Purity: >99% pure as determined by: (a) Gel filtration analysis. (b) Analysis by SDS-PAGE. Buffer System: The protein was lyophilized from a concentrated (0.85 mg/ml) solution with 0.003mM NaHCO ₃ . Endotoxin Level: < 0.1 ng/μg (IEU/μg). Reconstitution: Restore in sterile water or sterile 0.4% NaHCO ₃ adjusted to pH 8-9, not less than 100 μg/ml, which can then be further diluted with other aqueous solutions.
Description:	Recombinant Rat Leptin Antagonist Triple Mutant is a singly non-glycosylated polypeptide chain containing 146 amino and additional Ala at N-terminus acids. Leptin was mutated, resulting in L39A/D40A/F41A mutant. The product was purified by proprietary chromatographic techniques. AA Sequence: The sequence of the first five N-terminal was determined as Ala-Val-Pro-Ile-Gln. Biological Activity: Recombinant Rat Leptin Antagonist Triple Mutant is capable of inhibiting leptin-induced proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. It also inhibits various leptin effects in several <i>in vitro</i> bioassays. Molecular weight: 16 kDa
Add. Information:	Protein Content: Protein quantization was carried out by UV spectroscopy at 280 nm using the absorbency value of 0.21 as the extinction coefficient for a 0.1% (1 mg/ml) solution at pH 8.0. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).

Storage:

Store the lyophilized Leptin Antagonist Triple Mutant at RT for up to six weeks or desiccated below -20°C for longer.

Please avoid repeated freezing and thawing.

Shelf life: one year from despatch

Following reconstitution at > 0.1 mg/ml and filter sterilization the protein can be stored at 2-8°C or even room temperature for several weeks, making it suitable for long-term infusion studies using osmotic pumps. At lower concentration addition of a carrier protein (0.1% HSA or BSA) is suggested.

General Readings:

1. Yingzhong Y, Droma Y, Rili G, Kubo K. Regulation of body weight by leptin, with special reference to hypoxia-induced regulation. Intern Med. 2006;45(16):941-6. Epub 2006 Sep 15. PubMed PMID: 16974055.
2. Expression of endothelin-1 and adrenomedullin was not altered by leptin or resistin in bovine brain microvascular endothelial cells. Hypertens Res 2006 Jun;29(6):443-8
3. Brennan AM, Mantzoros CS. Drug Insight: the role of leptin in human physiology and pathophysiology--emerging clinical applications. Nat Clin Pract Endocrinol Metab. 2006 Jun;2(6):318-27. PubMed PMID: 16932309.
4. Leptin, estrogens and cancer. Mini Rev Med Chem 2006 Aug;6(8):897-907
5. Atabek ME, Kurtoglu S, Pirgon O. Possible effect of leptin on renal magnesium excretion in adolescent patients with type 1 diabetes. Pediatr Int. 2006 Aug;48(4):393-7. PubMed PMID: 16911085.
6. Sorace M, Tripodi L, Tripodi A, Groppetti D, Cremonesi F. Leptin: pharmacological aspects in gynecology. Clin Exp Obstet Gynecol. 2006;33(2):113-6. PubMed PMID: 16903251.