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Lep
Recombinant Rat Leptin Antagonist Triple Mutant, PEG

Catalog No.	CS425A	**Quantity:**	5 µg
	CS425B		20 µg
	CS425C		1.0 mg

Alternate Names: Leptin, Obesity factor, OB

Description: Recombinant Rat Leptin Antagonist Triple Mutant is a single non-glycosylated polypeptide chain containing 146 aa with an additional Ala at the N-terminus and having a molecular mass of ~16 kDa. The mutant was produced by substitutions at L39A, D40A, and F41A.

To produce the pegylated protein, the mutant was bound to 20 kDa mono-PEG at the N-terminus, resulting in a 35.6 kDa protein. The Mutant PEG runs as a 48 kDa protein and was purified by proprietary chromatographic techniques.

UniProt ID: P50596

Gene ID: 25608

Source: *E. coli*

Molecular Weight: 35.6 kDa

Formulation: Lyophilized from a concentrated (0.65 mg/ml) solution containing 0.003 mM $NaHCO_3$.

Purity: > 99.0% as determined by SEC-HPLC and SDS-PAGE analyses.

Extinction Coefficient: $E^{0.1\%}_{280nm}$ = 0.20 at pH 8.0

Biological Activity: Recombinant Rat Leptin Antagonist Triple Mutant has a half-life in circulation after SC injection of >20 hours. It is capable of inhibiting leptin-induced proliferation of BAF/3 cells stably transfected with the long form of the human leptin receptor. Its in vitro activity is 5 -6 fold lower than the non-pegylated antagonist, although *in vivo* it has a profound effect on weight gain (as compared to the non-pegylated antagonist), resulting mainly from increased food intake.

Reconstitution: Reconstitute the lyophilized protein 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.

Storage & Stability: Lyophilized protein, stable at room temperature for shipping purposes, should be stored at -20°C to -80°C. Upon reconstitution at >0.1 mg/ml, dilution up to 2 mM, and filter sterilization, the protein can be stored at 2-8°C for several weeks making it suitable for long term infusion studies. At lower concentration, addition of a carrier protein (0.1% HSA or BSA) is suggested. **Avoid repeated freeze-thaw cycles.**

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