

Datasheet for 012-001-320-5000**rRat Leptin Protein****Overview**

Description:	Rat Leptin Recombinant Protein - 012-001-320-5000
Item No.:	012-001-320-5000
Size:	5 mg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Rat
Expressed in:	E. coli

Product Details

Background:	Leptin is a protein that is thought to have a critical role in the physiologic regulation of body weight via its capacity to inhibit food intake and stimulate energy expenditure. Leptin also has thermogenic actions and regulates enzymes of fatty acid oxidation. Severe hereditary obesity in rodents and humans can be caused by defects in leptin production. These functions include the regulation of hematopoiesis, angiogenesis, wound healing, inflammation, and immune responses. Recombinant rat Leptin is a non-glycosylated protein, containing 147 amino acids, with a molecular weight of 16.2 kDa.
Synonyms:	Obesity protein
Species of Origin:	Rat
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	Lep
Purity/Specificity:	Leptin purity was determined to be greater than 95% as determined by analysis by UV-Spectroscopy at 280nm and by reducing and non-reducing SDS-pAGE.
Relevant Links:	• UniProtKB - P50596

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Leptin Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Leptin in immunological assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/ μ g protein. Biologic Activity: The activity is currently undetermined.

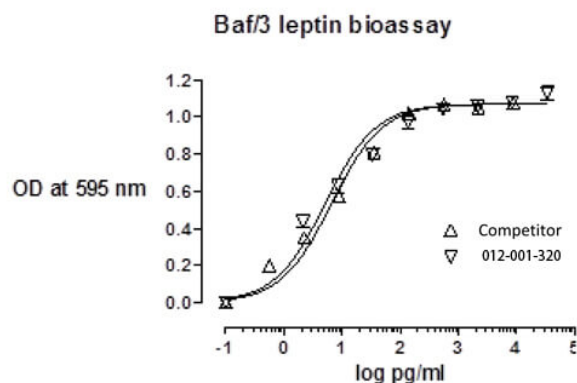
Formulation

Physical State:	Lyophilized
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	100 μ L to 20 μ L
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

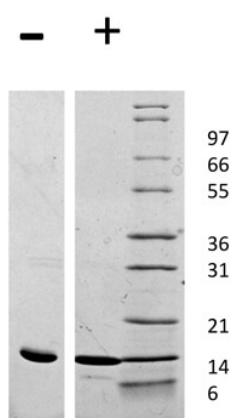
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE

Bioactivity of Rat Leptin Recombinant Protein. Serial dilutions of Rat Leptin were added to Baf/3 cells. After 44 hours cell proliferation was measured and the linear portion of the curve was used to determine the ED50. The ED50 of Rat Leptin is 4-6.7 pg/mL. This value is comparable to the expected range of less than 5-10 pg/mL.



SDS-PAGE

SDS-PAGE of Rat Leptin Recombinant Protein. Lane 1: 1 µg Rat Leptin in non-reducing conditions (-). Lane 2: 1 µg Rat Leptin in reducing conditions (+). Lane 3: Molecular weight marker. Rat Leptin has a predicted MW of 16.2 kDa.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.