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Datasheet for 009-001-320

# Leptin Human Recombinant Protein

## Overview

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|---|---|
| **Description:** | Leptin Human Recombinant Protein - 009-001-320 |
| **Item No.:** | 009-001-320 |
| **Size:** | 1000 µg |
| **Applications:** | SDS-PAGE |
| **Origin:** | Human |
| **Expressed in:** | E. coli |

## Product Details

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| **Background:** | Leptin inhibits food intake and stimulates energy expenditure. Leptin also has thermogenic actions and regulates enzymes of fatty acid oxidation. Severe hereditary obesity in rodents and humans is caused by defects in leptin production. In addition to its critical role in the physiologic regulation of body weight leptin has a variety of other physiologic and pathologic functions resembling those of cytokines. These functions include the regulation of hematopoiesis, angiogenesis, wound healing, inflammation, and immune responses. Leptin Human Recombinant produced in E. coli is a single, non-glycosylated, polypeptide chain containing 147 amino acids and having a molecular mass of 16 kDa. |
| **Synonyms:** | Leptin, LEP cytokine, Obesity factor, Obese protein |
| **Species of Origin:** | Human |
| **Expressed in:** | E. coli |
| **Type:** | Recombinant Protein |
| **Low Endotoxin:** | Yes |

## Target Details

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| **Gene Name:** | LEP |
| **Purity/Specificity:** | Purity was determined to be greater than 95% by analysis by RP-HPLC and by reducing and non-reducing SDS-PAGE. |
| **Relevant Links:** | • UniProtKB - P41159 |

- NCBI

## Application Details

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| **Tested Applications:** | SDS-PAGE |
| **Application Note:** | Leptin protein has been tested by SDS-PAGE 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:** | Biological Activity: Human Recombinant Leptin is fully biologically active when compared to standard. The ED50, calculated by the leptin-dependent stimulation of Human OB-R transfected mouse BaF/3 proliferation, is 1.36 ng/ml.<br><br>Endotoxin Level: Measured by LAL is <0.01ng/µg or <0.1EU/µg. |

## Formulation

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| **Physical State:** | Lyophilized |
| **Concentration:** | 0.1 mg/mL by UV absorbance at 280 nm |
| **Buffer:** | 0.1% Trifluoroacetic acid |
| **Preservative:** | None |
| **Stabilizer:** | None |
| **Reconstitution Volume:** | 1.0 mL |
| **Reconstitution Buffer:** | Restore with deionized water (or equivalent) |

## Shipping & Handling

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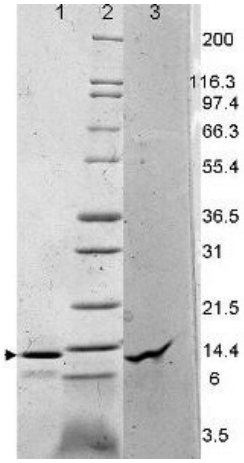
| **Shipping Condition:** | Ambient |
| **Storage Condition:** | Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL) . 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**
SDS-PAGE of Leptin Human Recombinant Protein. Lane 1: Leptin, unreduced. Lane 2: prestained MW markers. Lane 3: Leptin, reduced. Load: 1 µg per lane. Predicted/Observed size: 16 kDa, ~15 kDa for Leptin. Other band(s): none.

## Disclaimer