

Resource Summary Report

Generated by [SPARC SAWG](#) on Aug 10, 2026

SD-Lepr^{em4Lizh}

RRID:RGD_21079475

Type: Organism

Proper Citation

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Organism Information

URL: <https://rgd.mcw.edu/rgdweb/report/strain/main.html?id=21079475>

Proper Citation: RRID:RGD_21079475

Description: Rattus norvegicus with name SD-Lepr^{em4Lizh} from RGD.

Species: Rattus norvegicus

Notes: The Lepr knockout rats were generated by CRISPR/Cas9. Two pairs of synthesized oligonucleotides for gRNA targeting on the exon 4 of Lepr, TAGGCAAATCATCTATAACTTC and AAACGAAGTTATAGATGATTTG; TAGGCTGAAAGCTGTCTTTCAG and AAACCTGAAAGACAGCTTTCAG were microinjected into Sprague Dawley (originally from Charles River) zygotes. The rat was genotyped by PCR with the primers, 5-prime-CTTGTGTCCAGAGCCTTCCTATAAC and 5-prime-ATTCCCCATGTTGTCTAGTAGTGATC. For genotyping, a 662-bp fragment of WT and a 368-bp fragment of the Lepr knockout gene were amplified with PCR. Founder 2 was chosen to establish a colony (designated as Lepr^{-/-}), which carried a 298-bp deletion from No. 90043 bp to 90341 bp in the Lepr genome DNA sequence (NC_005104.4) and a 4-bp insertion and resulted in a termination codon TGA, deleting 997 amino acid of LEPR. Western blot analysis of total protein from liver tissue of the Lepr^{-/-} rats confirmed the absence of LEPR.

Catalog Number: 21079475

Background: mutant

Database: Rat Genome Database (RGD)

Database Abbreviation: RGD

Availability: Unknown

Alternate IDs: 21079475

Organism Name: SD-*Lepr*^{em4Lizh}

Record Creation Time: 20230509T191949+0000

Record Last Update: 20260808T193746+0000

Ratings and Alerts

No rating or validation information has been found for SD-*Lepr*^{em4Lizh}.

No alerts have been found for SD-*Lepr*^{em4Lizh}.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: Rat Genome Database (RGD)

Usage and Citation Metrics

We have not found any literature mentions for this resource.