

Resource Summary Report

Generated by [kravitz2](#) on Jul 31, 2026

F344-Cybb^{em1Shmo}Nox1^{em1Shmo}Nox4^{em1Shmo}

RRID:RGD_598092603

Type: Organism

Proper Citation

RRID:RGD_598092603

Organism Information

URL: <https://rgd.mcw.edu/rgdweb/report/strain/main.html?id=598092603>

Proper Citation: RRID:RGD_598092603

Description: Rattus norvegicus with name F344-Cybb^{em1Shmo}Nox1^{em1Shmo}Nox4^{em1Shmo} from RGD.

Species: Rattus norvegicus

Notes: A 7-base deletion in the first exon of the NADPH oxidase 2 (Nox2) gene, a 29-base deletion in the first exon of the NADPH oxidase 1 (Nox1) gene, and a one-base insertion in the first exon of the NADPH oxidase 4 (Nox4) gene were introduced by CRISPR/Cas9 in the F344/DuCrj rats. They were then backcrossed to F344/N (Japan SLC, Inc.). This triple Nox knock rats were created by compound crossbreeding of single knockout rats (RGD:598092598, RGD:598092601, RGD:598092602). [National BioResource Project for the Rat in Japan](#)

Catalog Number: 598092603

Background: mutant

Database: Rat Genome Database (RGD)

Database Abbreviation: RGD

Availability: Cryopreserved Sperm (as of 2025-03-28)

Alternate IDs: 598092603

Organism Name: F344-Cybb^{em1Shmo}Nox1^{em1Shmo}Nox4^{em1Shmo}

Record Creation Time: 20250416T090752+0000

Record Last Update: 20260725T194313+0000

Ratings and Alerts

No rating or validation information has been found for F344-Cybb^{em1Shmo}Nox1^{em1Shmo}Nox4^{em1Shmo}.

No alerts have been found for F344-Cybb^{em1Shmo}Nox1^{em1Shmo}Nox4^{em1Shmo}.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: Rat Genome Database (RGD)

Usage and Citation Metrics

We found 1 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Zhang Z, et al. (2025) Genetic and Pharmacological Inhibition of NOX4 Protects Against Rhabdomyolysis-Induced Acute Kidney Injury Through Suppression of Endoplasmic Reticulum Stress. Antioxidants (Basel, Switzerland), 14(10).