

Resource Summary Report

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National Bio Resource Project for the Rat.

RRID:SCR_012774

Type: Tool

Proper Citation

National Bio Resource Project for the Rat. (RRID:SCR_012774)

Resource Information

URL: <http://www.anim.med.kyoto-u.ac.jp/nbr/default.aspx>

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Description: NBRP-Rat was established to overcome limitations associated with properly utilizing existing rat resources. The collection of existing strains and genetic sub strains, phenotypic and genotypic characterization, cryopreservation of embryos, distribution of the collected rat strains, and a publicly accessible database of all assembled data are the major goals of this project. Once achieved, this unique database including the unique rat strains will become a powerful tool for biomedical research. A catalog of comparable, standardized and well characterized rat strains will lead to new and more precise research topics as well as it will facilitate biomedical sciences, drug discovery, advanced chemical research, and contributes to life sciences worldwide. As mentioned before, the major goals of NBRP-Rat are the collection, preservation and supply of rat strains. The repository includes strains from Japan and abroad, spontaneous mutants, congenic and recombinant strains as well as transgenic and mutagenized rats. Deposited rat strains are not only conserved as cryopreserved embryos and sperm. Many reference and frequently used rat strains are also maintained as living animals under SPF conditions. Furthermore, NBRP-rat provides a unique database on various rat strain phenotypes accompanied with basic genetic information. This allows scientists the selection of standardized and research specific strains. The animals themselves are provided free of charge to the research community (except for shipping costs). Sponsors: This project is one part of the National BioResource Projects (NBRP) in Japan for more than 20 species including animals, plants, microbes, tissues and DNAs. It is founded by the Japanese Ministry of Education, Culture, Sports, Science and Technology (Monkasho) and started in 2002.

Synonyms: NBRP-Rat

Resource Type: biomaterial supply resource, material resource, organism supplier

Keywords: drug, embryo, gene, genetic, animal, biology, biomedical, characterization, chemical, cryopreservation, database, genotypic, mutant, phenotypic, rat, recombinant, research, science, scientist, sperm, spontaneous, strain, transgenic

Funding:

Resource Name: National Bio Resource Project for the Rat.

Resource ID: SCR_012774

Alternate IDs: nif-0000-32936

Record Creation Time: 20220129T080312+0000

Record Last Update: 20250420T015157+0000

Ratings and Alerts

No rating or validation information has been found for National Bio Resource Project for the Rat..

No alerts have been found for National Bio Resource Project for the Rat..

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 28 mentions in open access literature.

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

Mizuno-Iijima S, et al. (2024) Mammalian genome research resources available from the National BioResource Project in Japan. Mammalian genome : official journal of the International Mammalian Genome Society, 35(4), 497.

Ishizuka Y, et al. (2024) In vivo fertilization improved the cryotolerance and developmental ability of vitrified-warmed rat fertilized oocytes. Scientific reports, 14(1), 24198.

Fujihara K, et al. (2021) Genetic deletion of the 67-kDa isoform of glutamate decarboxylase alters conditioned fear behavior in rats. FEBS open bio, 11(2), 340.

Xie K, et al. (2019) Quantifying changes in the bacterial thiol redox proteome during host-

pathogen interaction. *Redox biology*, 21, 101087.

Wang SJ, et al. (2019) Integrated curation and data mining for disease and phenotype models at the Rat Genome Database. *Database : the journal of biological databases and curation*, 2019.

Nonaka L, et al. (2018) Interplay of a non-conjugative integrative element and a conjugative plasmid in the spread of antibiotic resistance via suicidal plasmid transfer from an aquaculture *Vibrio* isolate. *PloS one*, 13(6), e0198613.

Igarashi H, et al. (2018) Targeted expression of step-function opsins in transgenic rats for optogenetic studies. *Scientific reports*, 8(1), 5435.

Myosho T, et al. (2018) Hyperosmotic tolerance of adult fish and early embryos are determined by discrete, single loci in the genus *Oryzias*. *Scientific reports*, 8(1), 6897.

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Abe K, et al. (2018) Quantitative study of the somatosensory sensitization underlying cross-modal plasticity. *PloS one*, 13(12), e0208089.

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Menon T, et al. (2018) Transient window of resilience during early development minimizes teratogenic effects of heat in zebrafish embryos. *Developmental dynamics : an official publication of the American Association of Anatomists*, 247(8), 992.

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Koh CS, et al. (2017) Small methyltransferase RlmH assembles a composite active site to methylate a ribosomal pseudouridine. *Scientific reports*, 7(1), 969.

Oh YJ, et al. (2016) Curli mediate bacterial adhesion to fibronectin via tensile multiple bonds. *Scientific reports*, 6, 33909.

Negishi T, et al. (2016) Physical association between a novel plasma-membrane structure and centrosome orients cell division. *eLife*, 5.

Sugihara T, et al. (2016) Absorption Characteristics of Vertebrate Non-Visual Opsin, *Opn3*. *PloS one*, 11(8), e0161215.

Ohtsu I, et al. (2015) Uptake of L-cystine via an ABC transporter contributes defense of oxidative stress in the L-cystine export-dependent manner in *Escherichia coli*. *PloS one*, 10(3), e0120619.

Koyanagi M, et al. (2015) Diversification of non-visual photopigment parainopsin in spectral sensitivity for diverse pineal functions. *BMC biology*, 13, 73.

Horikawa M, et al. (2015) Co-chaperone p23 regulates *C. elegans* Lifespan in Response to Temperature. *PLoS genetics*, 11(4), e1005023.