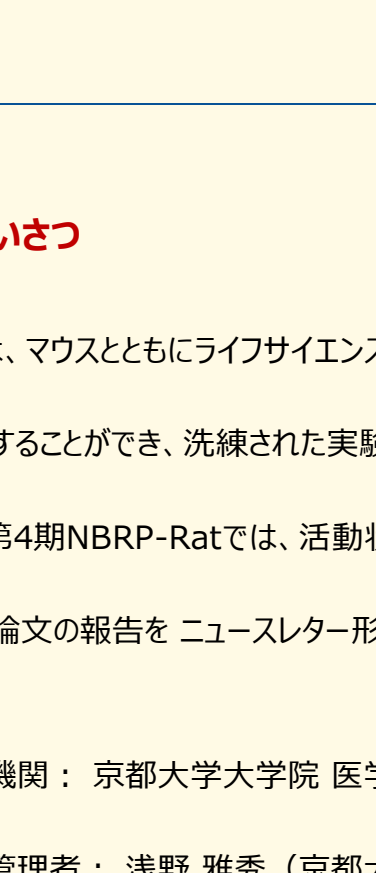


ラットリソースに関する最新情報をお知らせします！

特集記事



1. [ごあいさつ](#)
2. [新規寄託系統のご紹介](#)
3. [人気系統のご紹介](#)
4. [成果報告](#)

1. ごあいさつ

ラットは、マウスとともにライフサイエンス分野で広く用いられている哺乳類動物モデルです。遺伝と環境を厳密にコントロールすることができ、洗練された実験系を提供します。21世紀に入り、ラットを用いた研究の基盤が大きく前進しました。第4期NBRP-Ratでは、活動状況の報告として、新規に寄託された系統、よく提供している系統、リソースにかかわる論文の報告をニュースレター形式で皆様にお知らせいたします。

代表機関： 京都大学大学院 医学研究科 附属動物実験施設

課題管理者： 浅野 雅秀（京都大学教授、医学研究科附属動物実験施設）

2. 新規寄託系統のご紹介

NBRPラットに寄託され、データベースに新規に公開された系統です。

系統名をクリックすると、詳細情報が確認できます！

高血圧症モデルラット

寄託者： 島根大学 並河 徹 先生

[SHR-Prdx2^{em11Zm} \(NBRP Rat No. 0814\)](#)

[SHR-Prdx2^{em21Zm} \(NBRP Rat No. 0815\)](#)

てんかんモデルラット

寄託者： 東京農業大学 庫本 高志 先生

[F344-Hcn1^{em3Kyo} \(NBRP Rat No. 0819\)](#)

[F344-Hcn1^{em2Kyo} \(NBRP Rat No. 0820\)](#)

[F344-Hcn1^{em1Kyo} \(NBRP Rat No. 0821\)](#)

[F344-Hcn1^{em4Kyo} \(NBRP Rat No. 0822\)](#)

Creリコンビナーゼ遺伝子

寄託者： 東京慈恵会医科大学 加藤 総夫 先生

[W-Tg\(Slc32a1-cre\)3_5Fusa \(NBRP Rat No. 0839\)](#)

[W-Tg\(Slc32a1-cre\)1_4Fusa \(NBRP Rat No. 0875\)](#)

[W-Tg\(Slc32a1-cre\)2_5Fusa \(NBRP Rat No. 0876\)](#)

[W-Tg\(Slc32a1-cre\)5_9Fusa \(NBRP Rat No. 0877\)](#)

寄託者： 福島県立医科大学 小林 和人 先生

[LE-Tg\(Tac1-cre\)6-7Koba \(NBRP Rat No. 0893\)](#)

[LE-Tg\(Tac1-cre\)4-1Koba \(NBRP Rat No. 0900\)](#)

ラットを寄託された先生方には厚く御礼申し上げます。

提供のご依頼・価格等についてはこちらをクリック！

3. 人気系統のご紹介

平成30年度、提供依頼を多く頂いた系統です。

系統名をクリックすると、詳細情報が確認できます！

重症免疫不全ラット

寄託者： 大阪大学 真下 知士 先生

[F334-Il2rg^{em1Texas} \(NBRP Rat No. 0883\)](#)

[F344-Il2rg^{em1Texas}Rag2^{em1Texas} \(NBRP Rat No. 0883\)](#)

Cre recombinase存在下でtdTomatoを発現するラット

寄託者： 東北大学 八尾 寛 先生

[LE-Tg\(Gt\(ROSA\)26Sor-CAG-tdTomato\)24Jfhy \(NBRP Rat No. 0734\)](#)

全身の組織細胞でGFPを発現するラット

寄託者： 自治医科大学 小林 英司 先生

[W-Tg\(CAG-GFP\)184Ys \(NBRP Rat No. 0273\)](#)

水頭症発症ラット

寄託者： 長崎大学 大沢一貴 先生

[LEW/JmsNgs \(NBRP Rat No. 0103\)](#)

提供のご依頼・価格等についてはこちらをクリック！

4. 成果報告

NBRPラットに関する平成30年度8月～3月の成果論文です。

- Fujihara M, Kaneko T, Inoue-Murayama M.
Vitrification of canine ovarian tissues with polyvinylpyrrolidone preserves the survival and developmental capacity of primordial follicles.
[Sci Rep. 2019 Mar 8;9\(1\):3970.](#)
- Liu Y, Ohshiro T, Sakuragi S, Koizumi K, Mushiaki H, Ishizuka T, Yawo H.
Optogenetic study of the response interaction among multi-afferent inputs in the barrel cortex of rats.
[Sci Rep. 2019 Mar 8;9\(1\):3917.](#)
- Ohta R, Ohmukai H.
Effects of pregnancy experience on ovarian senescence and longevity in Hatano rats bred for high- and low-avoidance learning.
[Exp Gerontol. 2019 Mar;117:91-98.](#)
- Nishitani A, Kunisawa N, Sugimura T, Sato K, Yoshida Y, Suzuki T, Sakuma T, Yamamoto T, Asano M, Saito Y, Ohno Y, Kuramoto T.
Loss of HCN1 subunits causes absence epilepsy in rats.
[Brain Res. 2019 Mar 1;1706:209-217.](#)
- Kinoshita M, Shimizu S, Mashimo T, Serikawa T, Ito H, Ikeda A, Takahashi R, Ohno Y.
Down-Regulation of Astrocytic Kir4.1 Channels during the Audiogenic Epileptogenesis in Leucine-Rich Glioma-Inactivated 1 (Lg1) Mutant Rats.
[Int J Mol Sci. 2019 Feb 26;20\(5\).](#)
- Koseki H, Miyata H, Shimo S, Ohno N, Mifune K, Shimano K, Yamamoto K, Nozaki K, Kasuya H, Narumiya S, Aoki T.
Two Diverse Hemodynamic Forces, a Mechanical Stretch and a High Wall Shear Stress, Determine Intracranial Aneurysm Formation.
[Transl Stroke Res. 2019 Feb 8.](#)
- Shimizu Y, Yanobu-Takanashi R, Nakano K, Hamase K, Shimizu T, Okamura T.
A deletion in the Ctns gene causes renal tubular dysfunction and cystine accumulation in LEA/Tohm rats.
[Mamm Genome. 2019 Feb 30\(1-2\):23-33.](#)
- Herynek V, Turnovcová K, Gálisová A, Kaman O, Mareková D, Kottan J, Vosmanská M, Kosinová L, Jendelová P.
Manganese-Zinc Ferrites: Safe and Efficient Nanolabels for Cell Imaging and Tracking In Vivo.
[ChemistryOpen. 2019 Jan 23;8\(2\):155-165.](#)
- Soma S, Yoshida J, Kato S, Takahashi Y, Nonomura S, Sugimura YK, Ríos A, Kawabata M, Kobayashi K, Kato F, Sakai Y, Isomura Y.
Ipsilateral-Dominant Control of Limb Movements in Rodent Posterior Parietal Cortex.
[J Neurosci. 2019 Jan 16;39\(3\):485-502.](#)
- Ohta R, Kojima K.
Hatano rats selectively bred for high- and low-avoidance learning: an overview.
[Exp Anim. 2018 Dec 10.](#)
- Abe K, Yawo H.
Quantitative study of the somatosensory sensitization underlying cross-modal plasticity.
[PLoS One. 2018 Dec 5;13\(12\):e0208089.](#)
- Namioka T, Namioka A, Sasaki M, Kataoka-Sasaki Y, Oka S, Nakazaki M, Onodera R, Suzuki J, Sasaki Y, Nagahama H, Kocsis JD, Honmou O.
Intravenous infusion of mesenchymal stem cells promotes functional recovery in a rat model of chronic cerebral infarction.
[J Neurosurg. 2018 Oct 26.](#)
- Tanaka M, Kuramochi M, Nakanishi S, Kuwamura M, Kuramoto T.
Rat polyomavirus 2 infection in a colony of X-linked severe combined immunodeficiency rats in Japan.
[J Vet Med Sci. 2018 Sep 13;80\(9\):1400-1406.](#)
- Stratton JA, Holmes A, Rosin NL, Sinha S, Vohra M, Burma NE, Trang T, Midha R, Biernaskie J.
Macrophages Regulate Schwann Cell Maturation after Nerve Injury.
[Cell Rep. 2018 Sep 4;24\(10\):2561-2572.e6.](#)
- Gálisová A, Herynek V, Swider E, Sticová E, Pátiková A, Kosinová L, Kříž J, Hájek M, Srinivas M, Jiráček D.
A Trimodal Imaging Platform for Tracking Viable Transplanted Pancreatic Islets In Vivo: F-19 MR, Fluorescence, and Bioluminescence Imaging.
[Mol Imaging Biol. 2018 Aug 30.](#)
- Boateng M, Okai DB, Frimpong YO, Ntim A, Acheampong YS.
Entomophagous Response of Albino Rats to Cockroach (Periplaneta Americana) Meal.
[Open Agriculture. 2018 Aug 22.](#)
- Sakai T, Sasaki M, Kataoka-Sasaki Y, Oka S, Nakazaki M, Fukumura S, Kobayashi M, Tsutsumi H, Kocsis JD, Honmou O.
Functional recovery after the systemic administration of mesenchymal stem cells in a rat model of neonatal hypoxia-ischemia.
[J Neurosurg Pediatr. 2018 Aug 3.](#)
- Ohno T, Kai T, Miyasaka Y, Maruyama H, Ishih A, Kino H.
Intestinal immunity suppresses carrying capacity of rats for the model tapeworm, Hymenolepis diminuta.
[Parasitol Int. 2018 Aug;67\(4\):357-361.](#)

※ メーリングに掲載された記事を許可なく複製・転載することを禁止します。

NBRPラットWebページ: http://www.anim.med.kyoto-u.ac.jp/nbr/Default_jp.aspx

お問い合わせ: nbrp-adm@anim.med.kyoto-u.ac.jp

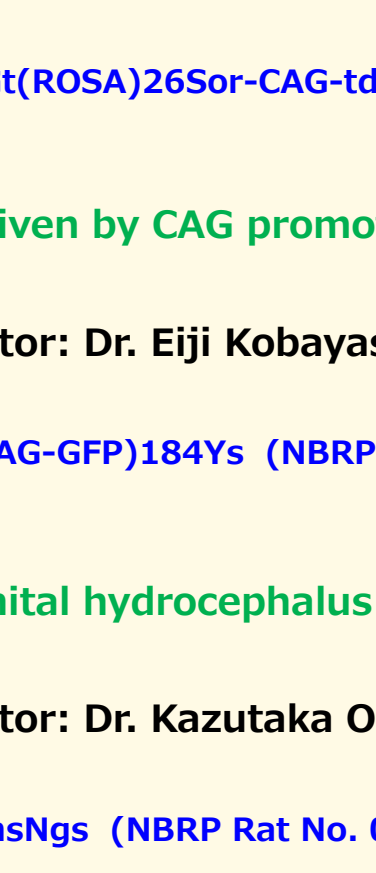
京都大学大学院 医学研究科 附属動物実験施設 NBRPラット

〒606-8501 京都府京都市左京区吉田近衛町

(075) 753-9318 (内線: 9318)

The latest information of NBRP Rat!

Feature articles



1. [Message](#)
2. [Newly deposited strains](#)
3. [Popular strains](#)
4. [Publications](#)

1. Message

Rats and mice are very important mammals in various fields of medical and biological research. The National BioResource Project-Rat in Japan (NBRP-Rat) has operated for 15 years and contributed as the world's largest rat repository to various fields of biomedical research. Here, we would like to introduce about the newly deposited strains, popular strains, and publications about NBRP-Rat as a report of our works.

Core facility: Institute of Laboratory Animals, Graduate School of Medicine, Kyoto University

Project Manager: Masahide Asano, Ph.D., Professor

2. Newly deposited strains

The information of these new strains are available on NBRP database.

Please press the strain names to check the information!

Hypertension

Depositor: Dr. Toru Nabika, Shimane University

[SHR-Prdx2^{em11Zm} \(NBRP Rat No. 0814\)](#)

[SHR-Prdx2^{em21Zm} \(NBRP Rat No. 0815\)](#)

Epilepsy

Depositor: Dr. Takashi Kiramoto, Tokyo University of Agriculture

[F344-Hcn1^{em3Kyo} \(NBRP Rat No. 0819\)](#)

[F344-Hcn1^{em2Kyo} \(NBRP Rat No. 0820\)](#)

[F344-Hcn1^{em1Kyo} \(NBRP Rat No. 0821\)](#)

[F344-Hcn1^{em4Kyo} \(NBRP Rat No. 0822\)](#)

Cre recombinase

Depositor: Dr. Fusao Kato, The Jikei University School of Medicine

[W-Tg\(Slc32a1-cre\)3_5Fusa \(NBRP Rat No. 0839\)](#)

[W-Tg\(Slc32a1-cre\)1_4Fusa \(NBRP Rat No. 0875\)](#)

[W-Tg\(Slc32a1-cre\)2_5Fusa \(NBRP Rat No. 0876\)](#)

[W-Tg\(Slc32a1-cre\)5_9Fusa \(NBRP Rat No. 0877\)](#)

Depositor: Dr. Kazuto Kobayashi, Fukushima Medical University

[LE-Tg\(Tac1-cre\)6-7Koba \(NBRP Rat No. 0893\)](#)

[LE-Tg\(Tac1-cre\)4-1Koba \(NBRP Rat No. 0900\)](#)

We thank depositors for their contribution to NBRP Rat.

Order or How to get the strain

3. Popular strains

These strains have been well ordered since April 2018.

Please press the strain names to check the information!

Severe Combined ImmunoDeficiency (SCID)

Depositor: Dr. Tomoji Mashimo, Osaka University

[F334-Il2rg^{em1Texas} \(NBRP Rat No. 0883\)](#)

[F344-Il2rg^{em1Texas}Rag2^{em1Texas} \(NBRP Rat No. 0883\)](#)

tdTomato expressed under the presence of Cre recobinase

Depositor: Dr. Hiromu Yawo, Tohoku University

[LE-Tg\(Gt\(ROSA\)26Sor-CAG-tdTomato\)24Jfhy \(NBRP Rat No. 0734\)](#)

GFP driven by CAG promoter is ubiquitously expressed

Depositor: Dr. Eiji Kobayashi, Jichi Medical School

[W-Tg\(CAG-GFP\)184Ys \(NBRP Rat No. 0273\)](#)

congenital hydrocephalus

Depositor: Dr. Kazutaka Ohsawa, Nagasaki University

[LEW/JmsNgs \(NBRP Rat No. 0103\)](#)

Order or How to get the strain

4. Publications

Publications about NBRP Rat from August 2018.

- Fujihara M, Kaneko T, Inoue-Murayama M.
Vitrification of canine ovarian tissues with polyvinylpyrrolidone preserves the survival and developmental capacity of primordial follicles.
[Sci Rep. 2019 Mar 8;9\(1\):3970.](#)
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- Herynek V, Turnovcová K, Gálisová A, Kaman O, Mareková D, Kottan J, Vosmanská M, Kosinová L, Jendelová P.
Manganese-Zinc Ferrites: Safe and Efficient Nanolabels for Cell Imaging and Tracking In Vivo.
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[J Neurosurg Pediatr. 2018 Aug 3.](#)
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Intestinal immunity suppresses carrying capacity of rats for the model tapeworm, Hymenolepis diminuta.
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NBRP Rat Web page: <http://www.anim.med.kyoto-u.ac.jp/nbr/Default.aspx>

Inquiry: nbrp-adm@anim.med.kyoto-u.ac.jp

NBRP Rat Institute of Laboratory Animals Graduate School of Medicine, Kyoto University

Yoshida-Konioe-cho, Sakyo-ku, Kyoto 606-8501, Japan

+81-075-753-9318 (EXT: 9318)