The Diversity Outbred (DO) stock is a genetically diverse mouse resource and may be used as a tool for high resolution genetic mapping and validation of previously identified quantitative trait loci (QTLs) linked to disease susceptibility, drug resistance or behavioral phenotypes.

Also Known As: Diversity Outbred, DO

View the Most Current Breeding Wave Schedule and Order Instructions.

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View Data Analysis Resources.
Details

Detailed Description

The Diversity Outbred (DO) stock is designed to be the most genetically diverse mouse resource available, allowing more accurate modeling of the human population and more refined gene mapping resolution than any other mouse model. Individual DO mice have highly heterogeneous genomes as a result of their diverse parental genetic contributions (see 'Development' below). DO mice may be used as a tool for high resolution genetic mapping and validation of previously identified quantitative trait loci (QTLs) linked to disease susceptibility, drug resistance or behavioral phenotypes. High density genotyping of individual mice can be achieved with genotyping arrays. DO mice may also be useful for toxicogenomic screens, compound evaluation in a genetically diverse population, and the development of opposite responder populations with high and low responses for specific phenotypes of interest.

For additional details on genomic composition and breeding statistics, please see the 2021 J:DO Genetic Diversity Report.

Development

Selected References

Genetics

Currently there are no related genes or alleles for this strain.
Genotyping Protocols
Genotyping resources and troubleshooting

Breeding Considerations
This strain is an exceptional breeder.
When maintained in a live colony, these mice are randomly bred and avoid the use of sibling matings.

Additional Breeding and Husbandry Support

Appearance
multiple coat colors

Citation
When using the J:DO mouse strain in a publication, please cite the originating article(s) and include JAX stock #009376 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

AX4 (Standard)
Sized to accommodate orders of up to 10 or more with age range. Ask Customer Service for details.

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PAYMENT TERMS AND CONDITIONS

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

THE JACKSON LABORATORY'S GENOTYPE PROMISE

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain's phenotype will meet all expectations. To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee breeding performance and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.
### Related Strains

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