

Phenotyping: Diabetes Panel

Charles River Laboratories Transgenic Services provides a variety of therapeutic phenotyping panels to assist with characterizing your unique models.

Our Diabetes Panel includes:

Basic Characterization

• *PhenoFirstSM Panel*

PhenoFirstSM includes *in vivo* evaluation, basic pathology, and basic clinical pathology. This panel targets organs of the peripheral nerve, peripheral vasculature and muscle (hind paw), and eye.

The minimum recommended sample size is three homozygous or knockout mice and three wild type controls that are age, sex, health status, and genetic background matched.

Additional Characterization

• *Age of Onset Study*

A breeding colony is set up at Charles River Laboratories to monitor the blood glucose levels of offspring. Weekly testing of blood glucose levels begins at three weeks of age for all offspring.

The resulting data is used to determine age of onset of hyperglycemia and to calculate the percentage of animals affected.

The minimum recommended sample size is five breeding pairs that produce sufficient litters to generate 10 offspring of each sex and genotype being characterized.

• *Rodent Multi-Analyte Profile plus Blood Glucose Level*

Each animal is screened for 60 plasma biomarker levels including insulin. As the plasma sample is collected, blood glucose level is analyzed.

The minimum recommended sample size is five homozygous or knockout mice and five wild type controls that are age, sex, health status, and genetic background matched.

• *Glucose Tolerance Test*

Animals are fasted overnight and their baseline blood glucose level is recorded. A glucose challenge is delivered orally, and blood glucose levels are screened at 15, 30, 60, and 120 minutes post-challenge.

The minimum recommended sample size is three homozygous or knockout mice and three wild type controls that are age, sex, health status, and genetic background matched.

Customized Characterization

We recognize that research goals vary. Our team of laboratory animal professionals is available to customize a model characterization plan that meets individual needs and helps you achieve your goals more efficiently.

Available Panels

Please click [here](#) to view a complete list of available panels.

For more information, please call 1.877.CRIVER.1 or e-mail askcrl@crl.com.