**Mc4r KO FatRat™ Model**

**Description**

The FatRat™, which has a mutation in the melanocortin 4 receptor (Mc4r), is the gene most commonly involved in human monogenic obesity. The FatRat™, develops obesity due to hyperphagia (overeating), as well as hyperinsulinemia and elevated leptin levels.

**Characteristics**

**EARLY AND LATE ONSET OBESITY**

Due to the intermediate phenotype of heterozygous rats, the FatRat™ develops both early onset and late onset obesity.

**Research Applications**

- Obesity - early and late inset obesity
- Dissociation of obesity and hypertension
- Sympathoactivation
- Behavioral studies – food intake, drug abuse
- Diabetes – hyperinsulinemia
- Complement model to ZDF rats

**References**

- Roth et al. *Interactions of amylinergic and melanocortinergic systems in the control of food intake and body weight in rodents*. Diabetes Obesity and Metabolism. 2012.

**In vivo obesity drug efficacy and toxicity services & off-the-shelf model distribution**

**DISSOCIATION OF OBESITY FROM HYPERTENSION MAKES THE FATRAT™ AN IDEAL COMPLIMENT TO THE ZUCKER DIABETIC FATTY (ZDF) RAT**

Obesity is a major cause of hypertension, but links between the obese and hypertensive states remain incompletely understood. Despite being profoundly obese and insulin resistant, FatRats™ are normotensive. In response to ganglionic blockade with mecamylamine, blood pressure and hindlimb resistance fell more in FatRats™, suggesting that sympathtoactivation of the vascular was still evident, despite the absence of hypertension (Phys Rep 2013).

**Pricing**

<table>
<thead>
<tr>
<th>Homozygous</th>
<th>Heterozygous</th>
<th>WT littermates</th>
</tr>
</thead>
<tbody>
<tr>
<td>$250.00</td>
<td>$150.00</td>
<td>$100</td>
</tr>
</tbody>
</table>

Inquire for services pricing

services@herabiolabs.com (859) 414-0648