



## DIABETIC NEPHROPATHY

### A MODEL FOR CHRONIC COMPLICATIONS OF HUMAN DIABETES OR END-STAGE RENAL DISEASE

#### MODEL

Two models are available:

- Streptozotocin induced diabetes (1)
- db/db mouse model (2)

#### SPECIES

Rat (1), mouse (2)

Depending on your compounds and objectives, NOD mouse (type 1 diabetes) and Zucker rat (type 2 diabetes) strains are also available. Please contact us for further information.

#### INTEREST

- (1) Similar features with the human type 1 diabetes are reproduced.
- (2) Most of the characteristic features of the human type 2 diabetes are present.

#### MODEL DESCRIPTION

- (1) Streptozotocin treatment causes complete pancreatic b-cell necrosis leading to the absence of insulin secretion.
- (2) This mouse strain is characterized by a lack of leptin signaling that induces hyperphagia and hyperinsulinemia.

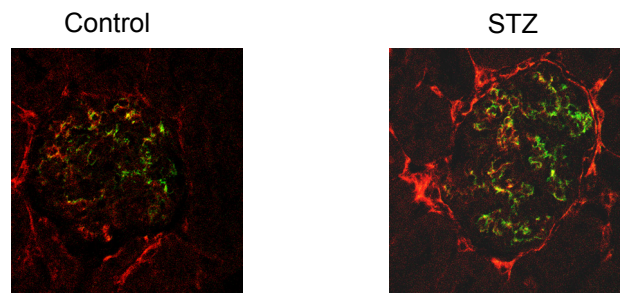
Reference substances: angiotensin-converting enzyme inhibitors, AT1 receptor antagonists.

#### PARAMETERS EVALUATED

- Renal function
- Histomorphometry
- Inflammation
- Oxidative stress
- Apoptosis
- Proliferation
- Fibrosis
- Specific mRNA expression profile

#### SCIENTIFIC PUBLICATIONS

- Cellier E et al, *Am J Physiol Renal Physiol* **284**: 282-92, 2003
- Mage M et al, *Can J Physiol Pharmacol* **80**: 328-33, 2002
- Girolami JP et al, *Can J Physiol Pharmacol* **73**: 848-53, 1995



ICAM staining in fluorescent microscopy.

