Physiogenex
THE METABOLIC DISEASES EXPERTS
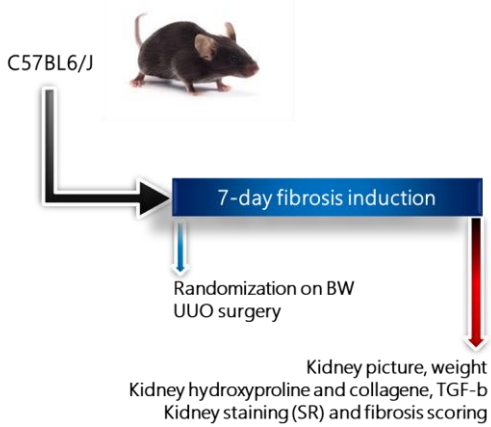
UUO-induced mouse model of renal fibrosis

Physiogenex delivers the standard mouse model of renal fibrosis to rapidly evaluate your compounds targeting fibrosis
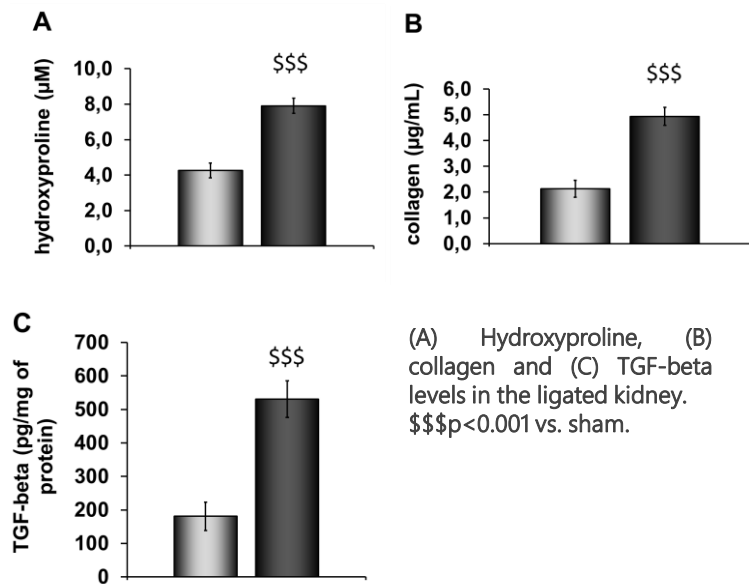
Key benefits

✓ A surgical and cost-effective animal model to rapidly evaluate the efficacy of your anti-fibrotic drug in just one week.

✓ Confirm the benefits of your test compounds with specific biochemical parameters and histopathology expertise.

EXPERIMENTAL DESIGN

- Background strain: C57Bl6/J mice
- Age/Gender/Weight: 6 week-old, male, 23-25g
- Surgery: Unilateral Ureteral Obstruction (UUO), left kidney
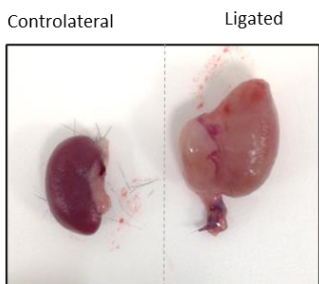- Time of induction: 7 days

C57BL6/J

7-day fibrosis induction

Randomization on BW
UUO surgery

Kidney picture, weight
Kidney hydroxyproline and collagene, TGF-b
Kidney staining (SR) and fibrosis scoring

MODEL CHARACTERISTICS

1-UUO INDUCES KIDNEY HYPERTROPHY

Entire kidney

Controlateral   Ligated

Representative pictures of entire contralateral and ligated kidneys

Sagittal cut

Controlateral   Ligated
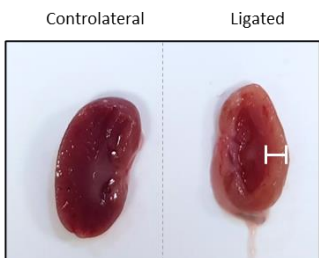
Representative pictures of sagittal cut of contralateral and ligated kidneys

2-UUO RAISES FIBROSIS MARKERS HYDROXYPROLINE, COLLAGEN AND TGB-BETA LEVELS IN THE LIGATED KIDNEY
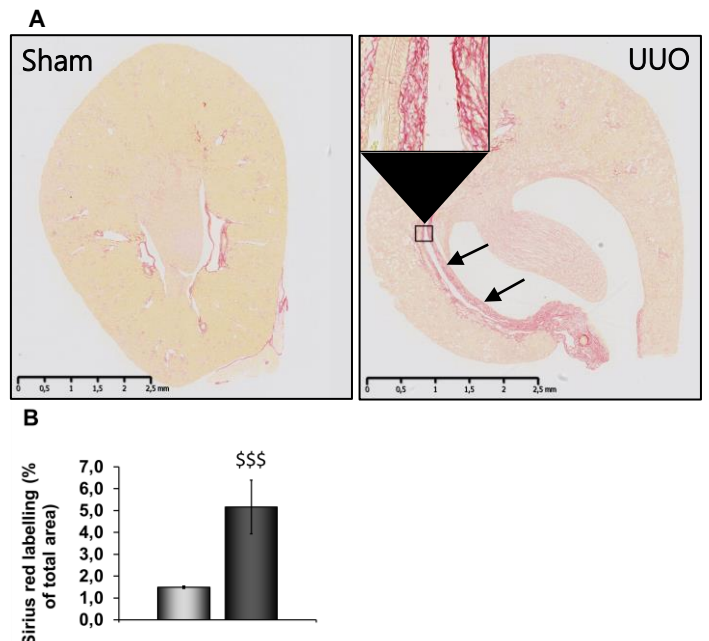
(A) Hydroxyproline, (B) collagen and (C) TGF-beta levels in the ligated kidney. $$$p<0.001 vs. sham.

3-UUO RAISES SIRIUS RED STAINING

Sham   UUO

(A) Representative pictures of Sirius red-stained sham- or ligated-kidney, (B) Percentage of Sirius red labelling relative to total area in ligated kidney.
$$$p<0.001 vs. sham. Arrows show fibrotic area.