Physiogenex
THE METABOLIC DISEASES EXPERTS

High Fat Diet mouse (60%)

A reference mouse model dedicated to type 2 diabetes and obesity studies

Key benefits

- ✓ Pharmacological model relevant to the main classes of approved anti-diabetic compounds
- ✓ Assess the efficacy of your compound in mice displaying major features of human type 2 diabetes
- ✓ Take advantage of Physiogenex's unique expertise with this model

ANIMAL MODEL

- Background Strain: C57BL/6 mice
- Gender: male mice 8 weeks
- Diet: HFD (~60% fat %E)
- Time on diet: 3 months
- Positive reference compounds: metformin, pioglitazone, …

PATHOPHYSIOLOGICAL FEATURES

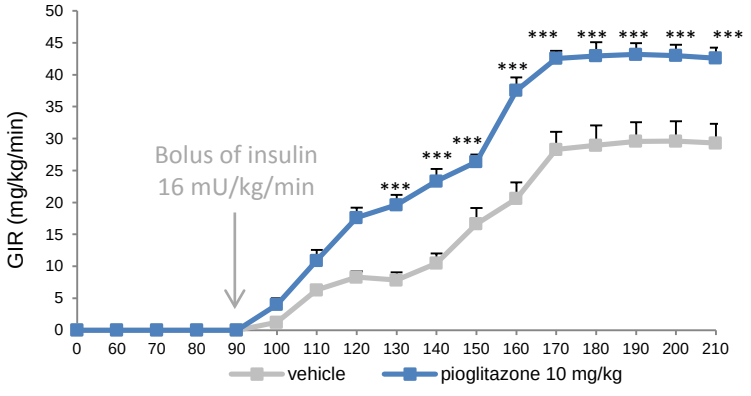
(after 12 weeks of diet)

- Obesity
- Hyperglycemia in fasting state
- Glucose intolerance
- Insulin resistance (hepatic and peripheral)

PHARMACOLOGICAL RELEVANCE

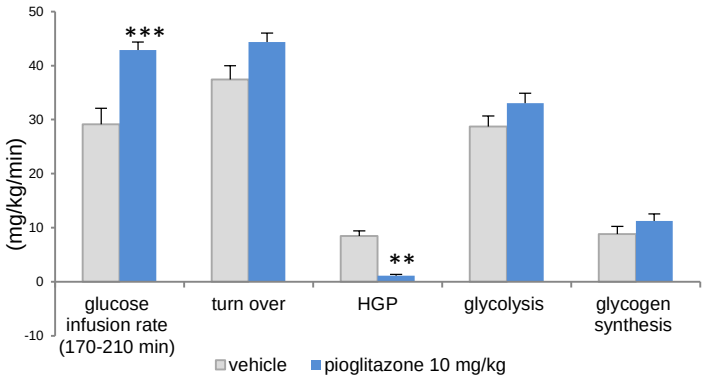
Reference compound: pioglitazone *(chronic treatment)*

Effect of pioglitazone treatment on glucose infusion rate assessed using an euglycemic-hypersinsulinemic clamp (16 mU/kg/min) + ^{3}H glucose

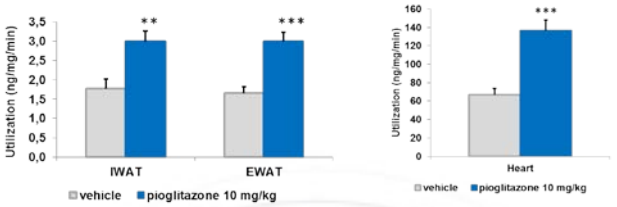


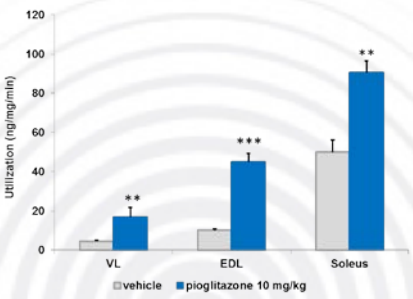
*** p< 0.001 *vs.* vehicle

Effect of pioglitazone treatment (4 weeks) on glucose fluxes during an euglycemic-hypersinsulinemic clamp (16mU/kg/min) + ^{3}H-glucose



Effect of pioglitazone on specific tissue glucose (quantification by ^{14}C-2-DOG accumulation in each tissue)





** p< 0.01 *vs.* vehicle
*** p< 0.001 *vs.* vehicle

Results :

- Improvement in whole body glucose utilization in insulin conditions
- Increase in glucose uptake by muscle, heart and adipose tissue

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