

In vivo individual tissue glucose uptake

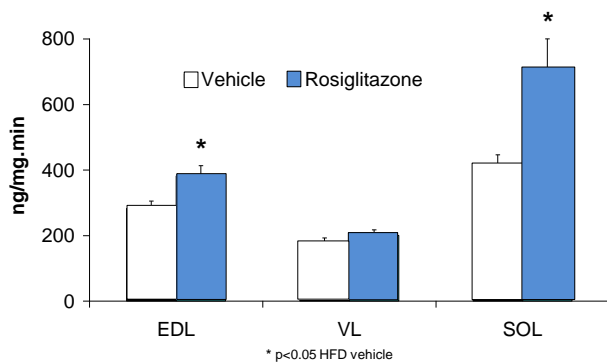
Unique solution for assessing the efficacy of your compound designed to treat type 2 diabetes on *in vivo* glucose uptake, tissue by tissue.

Key benefits :

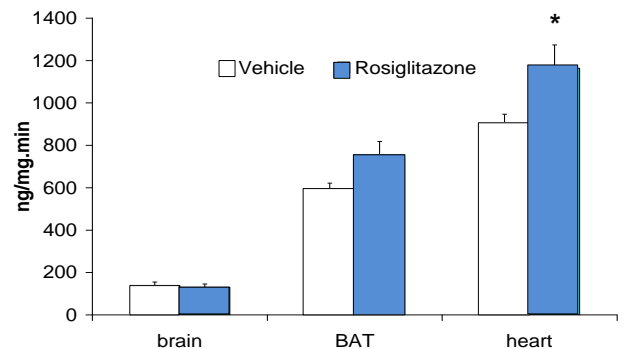
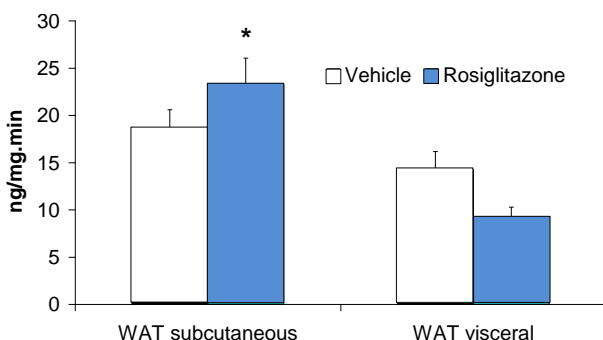
- ✓ The **individual tissue technique using radiotracers** provides critical information on additional tissue-specific benefits as well as unwanted effects on key tissues for **rapid strategic decision-making**.
- ✓ Information for stratifying future patient populations, with the effect of your compounds on specific tissues.
- ✓ Insights for devising **ex vivo tissue assays** for screening your hit compounds.
- ✓ Identifying additional **in vivo effects in specific tissues** that would not have been seen in any other type of experiment.
- ✓ **Anticipating adverse effects** on major tissues: brain, heart, muscle, and adipose tissue.

DESCRIPTION AND PARAMETERS EVALUATED

- Species: rat, mouse
- Muscle glucose uptake: Extensor digitorum longus (EDL), Vastus lateralis (VL), Soleus (SOL),...
- White adipose tissue (WAT) glucose uptake: subcutaneous, visceral
- Organ glucose uptake: brain, heart and brown adipose tissues (BAT)



Individual tissue glucose uptake in awake high-fat-diet mice using 18 mU/kg/min insulin



ADD-ON STUDIES

- Free fatty acid turnover with specific emphasis on individual tissue FFA storage rates, yielding a whole body tissue-by-tissue overview of the effect of your compound on lipotoxicity.

REFERENCES

- Knauf C et al, J Clin Invest 115: 3554-63, 2005
 Cook S et al, Diabetes 53:2067-72, 2004
 Burcelin R et al, Diabetes 48: 16264-9, 1999