

Jaxwest7 project protocol

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Effect of novel compounds on a model of asthma

Data and metadata are available on the [Jaxwest7](#) project page

The following Protocol was submitted by [JAX In Vivo Services](#) and is made available without modifications.

1.1 Study Objectives

The goal of the study was to test the efficacy of novel compounds in fed glucose in a diabetic mouse model.

2 INTRODUCTION

Diabetes is a rapidly increasing problem in the west. Treatments designed to improve blood glucose control have the potential to improve quality of life, extend life span and reduce health care costs from direct costs as well as associated complications.

3 METHODS AND RECORDS

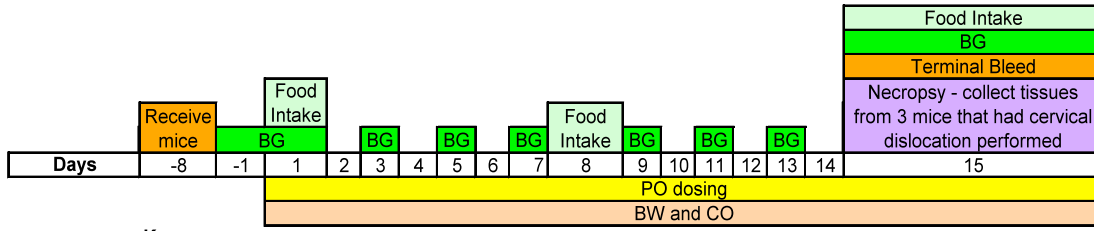
At 8 weeks of age, mice were sorted according to body weight and fed glucose, and were placed into 1 of 6 groups. Mice were dosed by oral gavage once and/or twice daily. Twice daily dosing were performed 7 hours apart.

Fed blood glucose was measured by tail nick once on Day -1, and twice daily (before dosing and 2 hours post dose) on Days 1, 3, 5, 7, 9, 11, 13 and Day 15 (approximately 5µl per measurement). The food intake was measured weekly. Body weights and clinical observations were measured daily.

Three mice from each group were euthanized by cervical dislocation, and dissected for Liver, Gastrocnemius muscle, Pancreas, and Epididymal adipose tissue. These mice were not tested for Day 15 glucose. Cervical dislocation for tissue retrieval is important since AMPK, the target of the drug is highly sensitive to hypoxia, and this means that it is activated by any method of termination that involves suffocation or respiratory depression. The remaining 5 mice in each group were euthanized by CO₂ inhalation, and terminal blood was taken by cardiac puncture.

The Liver, Gastrocnemius muscle, and Epididymal adipose tissue were snap-frozen in liquid nitrogen. All snap-frozen tissues were stored at -80°C and were shipped on dry ice to the sponsor. The Pancreas was placed in 10% neutral buffered formalin, sealed, and shipped at room temperature on the same day.

3.1 Procedural Timeline



Key:

- BW Body weights
- BG Blood Glucose
- CO Clinical Observations
- PO Oral gavage