Model Name
Hyperuricemia, Potassium Oxonate induced, Rat

Item Number
546600

Introduction
Gout is a common disease with a worldwide distribution and is mainly caused by deposition of monosodium urate crystals in joints and other tissues as a result of extracellular urate supersaturation. This disease has been associated with hyperuricemia which results from the overproduction and/or underexcretion of uric acid and is greatly influenced by a high dietary intake of nucleic acids.

Procedure Summary
Group of 6 Sprague-Dawley derived male rats weighing 200 ± 20 are used. Animals are injected subcutaneously with uricase inhibitor, potassium oxonate at 250 mg/kg one hour before vehicle, test articles or reference compound administration. Blood is collected from retro-orbital sinus with K3EDTA coated minitubes at 2 and 4 hours after test articles administration. Blood is centrifuged at 3000 rpm for 15 min at 4°C for plasma separation. Rat plasma is analyzed by blood chemistry autoanalyzer for uric acid concentrations. One-way ANOVA followed by Dunnett's test is applied for the statistically significant difference between vehicle and test substance groups. *P<0.05

Suggested Testing
• n=6/group (study design dependent)
• Doses may be administered PO, IV, IP and SC

Turnaround Time(s)
• For Acute Assays: 4 weeks from sample receipt
• For Subacute Assays: 6 weeks to 3 months

Literature

Related Assay(s)  (Item # - Assay Name - Species)
198000* - Xanthine Oxidase – Bovine
*provided by partner lab Eurofins Pharma Discovery Services

Modified Protocols
We will readily accommodate client-specified alterations.

Laboratory
These assays are performed at our AAALAC accredited laboratory in Taipei.

Animal Welfare
All aspects of this work is performed in general accordance with the Guide for the Care and Use of laboratory animals (National Academy Press, Washington, DC, 2011). The study protocol was approved by the Pharmacology Discovery Services IACUC and is performed with the oversight of veterinarians to assure the humane treatment of laboratory animals.

Reference Compound(s)
Allopurinol

Last modified March 27, 2018
For current details about our Company address and contact information, please reference our website
http://www.pharmacologydiscoveryservices.com/company-info/