Model Name
Cardiovascular, B. P. & Heart Rate, Rat, Safety non-GLP

Item Number
516000

Introduction
In vivo pharmacology assays may serve to extend in vitro results or detect potentially important primary and/or secondary pharmacodynamic activities. Semi-quantitative or quantitative data can be generated on request.

Procedure Summary
Groups of 5 Wistar male rats weighing 250 ± 20 g are employed. Rats are anaesthetized with sodium pentobarbital (40 mg/kg i.p.). The left carotid artery is cannulated with a polyethylene (PE50) catheter and each animal is housed separately with food and water freely available during recovery. On the following day, the arterial cannula of each conscious animal is connected via a Statham (P 23 x L) pressure transducer to a NEC/San-Ei Type 366 polygraph for direct mean arterial blood pressure measurement. Heart rate is derived from pulse pressure signals and monitored on a Pen Oscillograph (NEC/San Ei Type 8K). Various (generally 3) doses of the test compound, dissolved or suspended in a vehicle of 2% Tween 80 (10 ml/kg) are administered orally. The control group receives vehicle alone. Immediately before (0 time) and at 0.5, 1, 2 and 4 hours post-dosing, mean arterial blood pressure and heart rate are measured. The mean ± SEM values obtained are calculated for each treatment group and Dunnett’s test is applied for comparison between 0 time and each of the subsequent measured time points. Differences are considered significant at P<0.05.

Suggested Testing
• n=5/group (study design dependent)
• Adverse effects assessed at three doses
• Dosing volume at 10 mL/kg

Turnaround Time(s)
• Acute Assay: In-Life completion in 2-4 weeks from sample receipt
• For Subacute Assays: 6 weeks to 3 months

Literature

Related Assay(s)  (Item # - Assay Name - Species)
N/A

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.

For current details about our Company address and contact information, please reference our website http://www.pharmacologydiscoveryservices.com/company-info/
Reference Compound(s)

N/A

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