Model Name
Estrogen Agonism

Item Number
531000

Introduction
The immune system is influenced by estradiol (E2) in a diverse manner. The immune-regulatory properties of estrogen can influence the outcome of autoimmune diseases. Estrogenic agonism and antagonism is commonly used to study the cellular parameters of immune system.

Procedure Summary
Test substance is administered by oral gavage for 3 consecutive days to a group of 6 ICR derived immature female mice weighing 13 ± 1 g. The animals are sacrificed 24 hours after the final dose and wet weight of the uterus of each animal is measured. ANOVA followed by Dunnett's test is applied for comparison between vehicle and treatment groups. P<0.05 is considered significant.

Suggested Testing
• n=6/group (study design dependent)
• Doses may be administered TOP, PO, IV, IP, and SC
• Assessments available: Body weight, uterine weight, biomarkers and histology

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)
531500 - Estrogen Antagonism - Mouse

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)
Diethylstilbestrol, * Estradiol benzoate
Graph(s)

*P<0.05, treated vs. vehicle control; one-way ANOVA followed by Dunnett’s test.

Last modified January 22, 2018