CONCEPT LIFE SCIENCES

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Concept Life Sciences:
Estrogen Receptor assay, Test No455

Introduction

The VM7Luc4E2 cell line expresses the Estrogen receptors α and β (ER α and β) and has been stably transfected with an ER-responsive luciferase reporter gene to identify chemicals that activate (agonist) or inhibit (antagonist) ER-dependent transcription.

The VM7Luc4E2 Estrogen Receptor Transactivation Assay (ERTA) is performed in agonism and/or antagonism mode, based on the OECD Guidelines for the Testing of Chemicals, Test No. 455. Cell viability is checked to enable accurate interpretation of results.

Deliverable: A Study Report will be provided in draft for customers' comments, prior to report finalization.

Endocrine disruptor assessment

Regulators are concerned about the potential for environmental chemicals such as agrochemicals and their metabolites to perturb hormone systems. This has led to recommendations for the testing of potential endocrine disrupting chemicals.

Concept Life Sciences are experts in regulatory studies for investigative mechanistic toxicology. Our specialist team of scientists offer a suite of endocrine disruptor assays which can be used to compare results across species and interrogate different mechanisms of endocrine modulation, to evaluate the relevance of *in vivo* toxicology findings.

- Steroidogenesis H295R
- Estrogen transactivation
- Androgen transactivation
- Aromatase assay (Inhibition of CYP19)
- See also our suite of thyroid hormone modulation assays

Customer provides

Compound identifier, molecular formula and batch molecular weight. Test item: 500 mg solid*.

(**permits extended solubility checks and repeats if required)*

Cell line

VM7Luc4E2 cell line.

Format

Range Finder test: Seven (7) concentrations of Test Item assayed (serial dilution factor of ten, duplicate replicates).

Comprehensive test: Eleven (11) concentrations of Test Item assayed in triplicate.

Assays are run in agonism or antagonism mode. Substances are classified as positive or negative for agonism or antagonism using the classification criteria described in OECD Test Guideline No455.

Controls

Assay acceptance criteria are available on request.

Protocol summary

A written protocol will be provided for customer's approval prior to commencement of laboratory work. Customer to provide test compound at least 5 days prior to study initiation.