In vitro cell proliferation assays

Test chemicals or extracts that act as estrogens or anti-estrogens bind to estrogen receptors (ERs) (either alpha or beta). Such ER binding modulates the transcription of estrogen-responsive genes, leading to the stimulation of an estrogen-dependent response in MCF-7 cells, which contain ER alpha and ER beta or BG1Luc cells. Anti-estrogenic activity is determined as an ability to inhibit a submaximal stimulation by the natural estrogen, 17 beta-estradiol (E2). We run these assays in a robot format, saving money and time.

Test chemicals or extracts that act as estrogens or anti-estrogens bind to estrogen receptors and lead to the transcription of androgen-responsive genes, leading to the stimulation of an androgen-dependent response in MDA-kb2 cells. Anti-estrogenic activity is determined as an ability to inhibit a submaximal stimulation by the natural androgen, dihydro-testoterone (DHAT). We also run this assay in a robot format, saving money and time.

The advantages of our in vitro assays for detecting estrogenic or androgenic activity include:

(1) High accuracy, ,sensitivity and specificity.
(2) Ability to analyze mixtures of known or unknown chemicals.
(3) Low cost.
(4) Ability to analyze small amounts of suspect chemicals or chemical mixtures.
(5) In vitro assays reduce animal use in compliance with protocols of the Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM).

For information on pricing and certification, please contact us directly at clients@certichem.com