



TOXICITY, MUTAGENICITY & GENOTOXICITY

EBPI (Environmental Bio-Detection Products Inc.) is specializing in the manufacture and custom application of simple, rapid, and cost effective methods for detection and monitoring of toxic, mutagenic and genotoxic materials. In addition to being used for evaluation of existing and new chemicals, the kits have found application in assessing environmental pollution risks in drinking water, wastewater, soil and air. We are a research and development-focused laboratory and manufacturing facility continually developing new testing procedures and easy-to-use testing kits for use by research laboratories around the world

Genotoxicity Testing Kits



The SOS ChromoTest™ kit is based on a novel genetically engineered E.coli, which measures the primary response of a cell to genetic damage. In just a few hours, the kit provides a clear, completely objective measurement of the genotoxicity of a sample by a simple visual qualitative evaluation of the degree of DNA damage the cell experiences by observing the colour obtained. A more quantitative value may be obtained by spectrophotometry using a micro-plate reader. The SOS ChromoTest™ analyses are highly correlated with the Salmonella 'Ames Test' for certain materials.

EBPI has developed the umu-c test into the UMU-CHROMOTEST™, a simple procedure based upon the International Organization for Standardization protocol ISO 13829 (Water Quality- Determination of the genotoxicity of water and waste water using the umu-test) which can be performed easily in a non- Specialized laboratory. The Umu-ChromoTest kit (umu-c test) is based on a novel genetically engineered Salmonella typhimurium which measures the response of a cell to genetic damage. In just a few hours, the kit provides a clear, quantitative measurement of the genotoxicity of a sample by simple colorimetric evaluation.



Acute Toxicity Testing Kits



A microplate toxicity bioassay to determine acute and chronic toxicity in water, effluents, and other liquids.

The **Toxi-ChromoTest™** procedure exposes the bacteria to the toxicants in the sample for a short (90-minute) incubation period. After the incubation period, a chromogenic substrate is added. If the sample is toxic, no colour will develop and if the sample is non-toxic, a distinctive blue colour quickly develops. The kit provides a clear, completely objective measurement of the toxicity of the sample by a simple visual qualitative evaluation of the colour obtained, or quantitatively by spectrophotometry using a micro-plate reader.

The **ColiPlate™** utilizes proven nutrient indicators X-Gal and MUG to detect viable Coliforms and E. coli bacteria as well as selective media to stimulate the growth and indicators for chromogenic and fluorogenic enzymes. The substrates react with the enzymes produced by the Coliforms (Beta-D-galactosidase) and the E. coli (Beta-D-glucuronidase) resulting in a blue/green formation of colour, and a fluorescence emission by the Coliforms and E. coli respectively.

