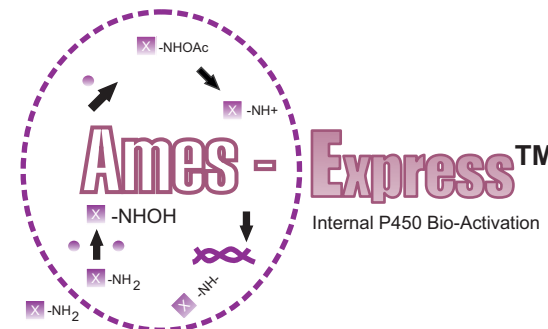


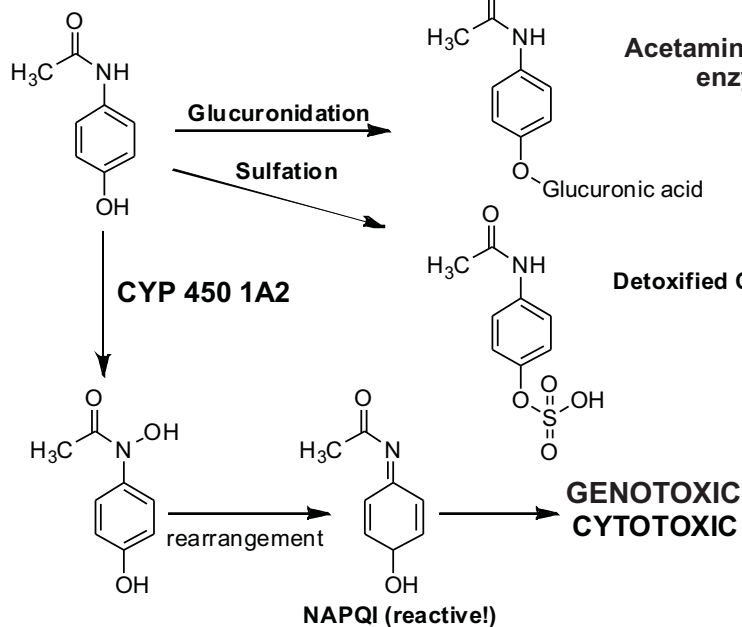
Ames-Express™ Internal P450 1A2 Bioactivation

- P450 1A2 is responsible for metabolism of several prominent pharmaceuticals including:
 - Acetaminophen
 - Diazepam
- Reactive metabolites of pharmaceutical precursors are created and evaluated
- Eliminates incorporation of Sg liver extract
- Improvements in sensitivity compared to traditional Ames assays
- Response suppression from interactions with Sg lysate mix is eliminated
- Facile extrapolation to human health endpoints
- Allows specific study of drug metabolism pathways

EBPI Labs can help assist with testing of drug candidates as well as the development of bioassays to meet your requirements. Please visit us at www.EBPILabs.com to learn more.



Acetaminophen

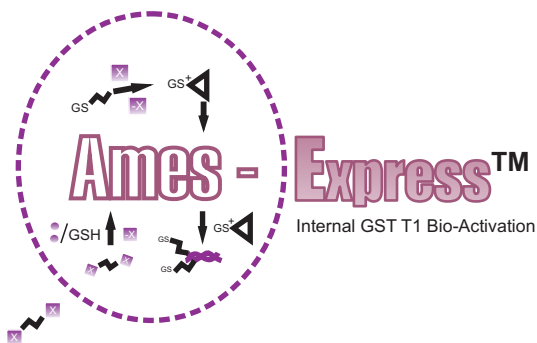


- IDEAL for testing pharmaceuticals for mutagenic potency and mutagenic mechanisms
- Increased relevance to human health risk assessments
- Kits are easy to use and include all plastics, reagents, bacteria and controls
- Tests can be modified to meet the end users requirements

EBPI has engineered a new line of bacterial strains that express human metabolic enzymes for reverse mutation assays known as the Ames test

Ames-Express™ Internal GST T1-1 Bioactivation

- GSTT1-1 is a conjugation enzyme that detoxifies SEVERAL important chemotherapeutics
 - Platinum
 - Anthracyclines
 - Epipodophylotoxins
- GST expressing Ames assays promotes the study of drug detoxification pathways
- Aid in design of GST-activated prodrugs for disease therapy
- Response suppression from interactions with S9 lysate mix is eliminated
- Directly observe efficacy of chemotherapeutics on levels of DNA damage from GST interactions

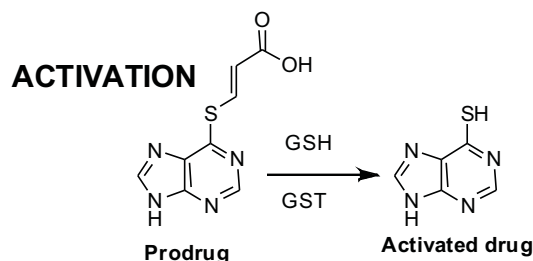


- Analyze important metabolic pathways and consequences from interactions with GST enzymes
- Improved drug design for electrophilic chemotherapeutics
- Kit includes all plastics, reagents, bacteria, and controls with options to include consultant services

Ames-Express™ GST T1-1 Internal Bioactivation System



Two outcomes of pharmaceutical interactions with GST Enzymes

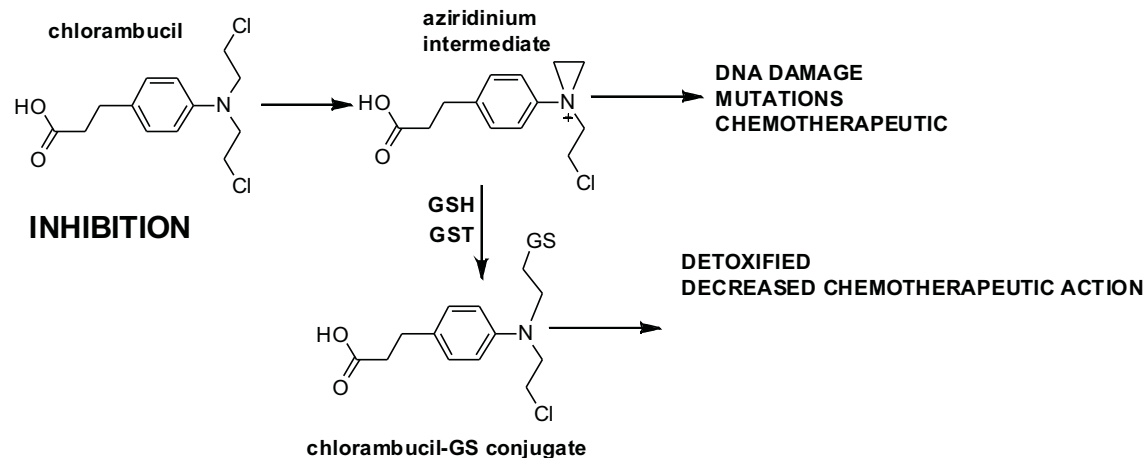


Why use the Ames Express Strains?

- Measure decreasing toxicity of compounds from conjugation
- Detection of alternate drug metabolism pathways
- Measurement of decreased chemotherapeutic or drug efficacy through detoxification or inhibition

Activation of GST dependant prodrugs like cis-3-(9H-purin-6-ylthio) acrylic acid (right)

Inhibition though detoxification by conjugation (below)



Ames Express Bacterial Strains are ESSENTIAL Tools for mutagenicity testing in BIOMEDICAL and PHARMACEUTICAL toxicological assessments.