

INVOICE INFORMATION	REPORT INFORMATION	PROJECT INFORMATION	TURNAROUND TIME (TAT)
Company Name: _____ Contact Name: _____ Address: _____ Phone: _____ Fax: _____ Email: _____	<input type="checkbox"/> Same as invoice information Company Name: _____ Contact Name: _____ Address: _____ Phone: _____ Fax: _____ Email: _____	Quotation #: _____ P.O. #: _____ Project #: _____ Site Location: _____ Site #: _____ Sampled By: _____	<input type="checkbox"/> Regular TAT (15-25 days) <b>PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS</b> <input type="checkbox"/> Rush TAT (Applicable Surcharge) <input type="checkbox"/> 5-7 Days (25%)

Sample Preparation Steps	ANALYSIS REQUESTED						LABORATORY USE ONLY													
<input type="checkbox"/> pH Adjustment <input type="checkbox"/> Concentrate Sample  <input type="checkbox"/> Filtration/ Sterilization  <input type="checkbox"/> DMSO suspension or dissolution (solid samples)	TEST METHOD	AMES ASSAYS				AMES-EXPRESS ASSAYS		Rush Confirmation (Y/N): _____												
BACTERIAL STRAINS		EXPRESS P450	EXPRESS GST		Date Required: _____															
		BACTERIAL STRAINS		1A2	T1-1		Sample Seal (Y/N)													
		AMES TEST	MUTA-CHROMOPLATE	MODIFIED ISO	TA 100	TA 98	TA 1535	TA 97a	WP2 uvrA	WP2 uvrA pKM 101	S9 FRACTION	TA 100	TA 98	TA 1535	TA 97a	TA 100	TA 1535	TA 98	Temperature (°C) upon Receipt	pH upon Receipt
																			Present	Intact

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF DILUTIONS	# OF REPLICATES																
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

SUBMITTED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME:	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME:	EBPI LABS PROCESSING #	COMPLETION DATE	TECHNITIAN INITIALS
							CLIENT CONTACTED (Y/N)	

## Bacterial Strain Options for Ames Assays and Ames Express Assays

Bacterial Strain	Mutation Site (gene)	Type of Reversion Mutation	Standard Mutagens	Comments
TA 100	<i>hisG46</i>	Base-pair substitution (specific for G:A transitions, also detects G:T and G:C transversions)	NaN <sub>3</sub>	Uvr B repair deficient, with <i>rfa</i> mutation to increase permeability. Includes plasmid pKM 101 which induces an error-prone DNA repair pathway and inhibits proper DNA replication
TA98	<i>hisD3052</i>	+1 and -2 frameshifts	2NF	UvrB repair deficient, with <i>rfa</i> mutation to increase toxicant permeability Contains plasmid pKM 101, induces an error-prone DNA repair pathway and inhibits proper DNA replication
TA 97a	<i>his6610</i>	-1 and +1 frameshifts	9AA	Uvr B repair deficient, with <i>rfa</i> mutation to increase permeability Includes plasmid pKM 101 which induces an error-prone DNA repair pathway and inhibits proper DNA contains extra mutational hotspot to detect similar mutations to TA98 strain
TA 1535	<i>hisG46</i>	Base-pair substitution (specific for G:A transitions, also detects G:T and G:C transversions)	NaN <sub>3</sub>	Uvr B repair deficient, with <i>rfa</i> mutation of the cell wall to increase permeability  Similar mutations detected as TA100, lacks pKM 101 plasmid
WP2 uvrA	<i>trpE65</i>	Base-pair substitution (A:T)	4NQO	UvrA deletion mutation eliminates accurate excision repair mechanism More DNA lesions repaired by error-proned system
WP2 uvrA pKM 101	<i>trpE65</i>	Base-pair substitution (A:T)	4NQO	Enhances chemical and UV mutagenesis by conferring supplementary error-prone DNA repair activity in pKM 101 plasmid.

## Ames-Express Assays

At EBPI, we have engineered the expression of two human metabolic enzymes (CYP 450 1A2 and GST T1-1) into our Ames test bacteria, which eliminates the need to add rat liver enzymes (S9 fraction) to induce metabolic bioactivation. S9 fractions are available for the all Ames assays.

### Benefits of our NEW Ames-Express systems:

- Internal metabolic activation allows detection of short-lived mutagenic metabolites
- Lowers possible sequestering of potential mutagens through protein binding with S9 fraction components
- **INCREASES** human biological relevance, since enzymes expressed are human proteins
- Provides selective detection of compound classes (halogenated alkanes, PAHs) within environmental samples

## Assay Method Options

Method	Comments
Standard Ames Test	Plate method, widely used, industry standard, small sample size, sample concentration possible
Modified ISO	Modified fluctuation test, pre-exposure, increased sensitivity, sample concentration possible
Muta-ChromoPlate	Fluctuation test, no pre-exposure, increased sensitivity, constant exposure concentration