A) AMES II ASSAY / METHOD

I. TEST SYSTEM

The Ames II assay of Xenometrix is a liquid microtiter modification of the traditional Ames test for the detection of potential mutagens in bacterial systems.

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The Ames II assay of Xenometrix is a liquid microtiter modification of the traditional Ames test for the detection of potential mutagens in bacterial systems. Culture preparation

Assay Preparation

Screening (HTS)

Compound throughput is ~ 5 times higher with the "Ames II Assay" than with the traditional Ames test.

A. Culture

Salmonella typhimurium.

B. Assay Preparation

Media and tester strains, except S9-mix, are available as a kit.

C. Exposure Culture

Routine analysis

D. Assay

Mutagenicity (growth of bacteria) is measured colorimetrically from purple to yellow (pH change).

E. Results

The Ames II assay is available in two versions:

1. "Manual kit" (benchtop version for routine analysis)
2. "High throughput screening (HTS)” (automatable version)

F. Reference

Carcinogenicity data (70 compounds)

B) AMES II ASSAY / VALIDATION STUDY

I. AIM

The percentage of correctly identified genotoxic/non-genotoxic compounds of the two test systems is comparable.

II. RESULTS

1. COMPARISON OF THE TWO Ames Test SYSTEMS: RESULTS OBTAINED WITH 127 COMPOUNDS

<table>
<thead>
<tr>
<th>Ames I Assay</th>
<th>Ames II Assay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>91 (32.3%)</td>
</tr>
<tr>
<td>Positive</td>
<td>16 (13.8%)</td>
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</tbody>
</table>

III. CONCLUSIONS

The Ames II assay is therefore suitable for the screening of mutagens/potential carcinogens.