Cytochrome P-450 Induction In Human Hepatocytes

**Objective:** To assess the variation in CYP induction profile with individual substrate to pooled substrate approach

**Requirements:** Plateable Human Hepatocytes

**Inducers:**
- CYP1A2 - OMEPRAZOLE - 100 μM
- CYP2B6 - PHENOBARBITONE - 1 mM
- CYP3A4 - RIFAMPICIN - 10 μM

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Pooled substrate protocol employed to mimic physiological conditions

<table>
<thead>
<tr>
<th>Inducers</th>
<th>Substrate</th>
<th>CYP isoforms</th>
<th>Receptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omeprazole</td>
<td>Phenace02</td>
<td>CYP1A2</td>
<td>AhR</td>
</tr>
<tr>
<td>Phenobarbitone</td>
<td>Bupropion</td>
<td>CYP2B6</td>
<td>CAR</td>
</tr>
<tr>
<td>Rifampicin</td>
<td>Testosterone</td>
<td>CYP3A4</td>
<td>PXR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Isoform</th>
<th>Single Substrate</th>
<th>Pooled substrate</th>
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</thead>
<tbody>
<tr>
<td>3A4</td>
<td>6.19</td>
<td>7.92</td>
</tr>
<tr>
<td></td>
<td>6.39</td>
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</tr>
<tr>
<td>2B6</td>
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<tr>
<td>1A2</td>
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<td>11.19</td>
<td>7.71</td>
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