ElectronicSupplementaryInformation

Determination of microRNA-122 in hepatocytes by two-step amplification of duplex-specific nuclease with laser-induced fluorescence detection

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Table S1 Oligonucleotide sequences

<table>
<thead>
<tr>
<th>Nucleic acids</th>
<th>Sequence (5' to 3')</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probe 1</td>
<td>FAM-CAAACACCATTGTCACACTCCATATTCTCAGGTGTGG-BHQ1</td>
</tr>
<tr>
<td>Probe 2</td>
<td>FAM-CCTGGTCAAACACCTGAAGAATAACCAGG-BHQ1</td>
</tr>
<tr>
<td>MiR-122</td>
<td>UGGAGUGUGACAAUGGUGUUG</td>
</tr>
<tr>
<td>MiR-122 (mismatch 1)</td>
<td>UGGAGUGUGATAAUGGUGUUG</td>
</tr>
<tr>
<td>MiR-122 (mismatch 3)</td>
<td>UGGAGUUGUGATAAUGGUGUUG</td>
</tr>
<tr>
<td>MiR-21</td>
<td>UAGCUUACAGACUGAUGUUG</td>
</tr>
</tbody>
</table>

Underlined parts were the mismatched bases

Table S2 Repeatability

<table>
<thead>
<tr>
<th>Repeatability</th>
<th>Fluorescence increment (mV)</th>
<th>RSD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 9)</td>
<td></td>
</tr>
<tr>
<td>Intraday</td>
<td>255.67 282.36 272.52 268.68 267.14 267.91 276.01 268.69 267.18</td>
<td>2.69%</td>
</tr>
<tr>
<td>Interday</td>
<td>269.36 264.11 289.95 252.95 267.14 279.43 280.19 260.11 276.01</td>
<td>4.23%</td>
</tr>
</tbody>
</table>

Table S3 Recoveries

<table>
<thead>
<tr>
<th>Cells</th>
<th>Analytes</th>
<th>Added amount</th>
<th>Found amount</th>
<th>Recoveries</th>
<th>RSD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(M)</td>
<td>(M)</td>
<td>(%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n = 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken liver</td>
<td>miR-122</td>
<td>4.50 × 10^{-10}</td>
<td>5.06 × 10^{-10}</td>
<td>112.4%</td>
<td>6.08%</td>
</tr>
<tr>
<td>Duck liver</td>
<td>miR-122</td>
<td>9.50 × 10^{-10}</td>
<td>9.19 × 10^{-10}</td>
<td>95.68%</td>
<td>5.95%</td>
</tr>
</tbody>
</table>
A, MS spectrogram for miR-122 (50ppm); B, MS spectrogram of the sample of chicken liver; C, MS spectrogram of the sample of duck liver