A new synthesis of fully phosphorylated flavones as potent pancreatic cholesterol esterase inhibitors

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Analytical data and graphs for determination of inhibitor IC50
Compounds 1a–1e, 2a–2e were assayed according to the above procedure. The IC50 values are shown in Table 1, and Figures 1–7.

Table 1 Inhibitory effects on CEase of 1a–1e and 2a–2e

<table>
<thead>
<tr>
<th>Compound</th>
<th>IC50/nM</th>
<th>Compound</th>
<th>IC50/µM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a</td>
<td>3.89</td>
<td>1a</td>
<td>28.1</td>
</tr>
<tr>
<td>2b</td>
<td>26.1</td>
<td>1b</td>
<td>35.7</td>
</tr>
<tr>
<td>2c</td>
<td>3.76</td>
<td>1c</td>
<td>ni&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>2d</td>
<td>2.44</td>
<td>1d</td>
<td>ni</td>
</tr>
<tr>
<td>2e</td>
<td>390</td>
<td>1e</td>
<td>ni</td>
</tr>
</tbody>
</table>

<sup>a</sup> ni,  no inhibition at 100 µM.

Figure 1. Graph for determining IC50 value of 2a for CEase inhibition

Figure 2. Graph for determining IC50 value of 2b for CEase inhibition
Figure 3. Graph for determining IC50 value of 2c for CEase inhibition

Figure 4. Graph for determining IC50 value of 2d for CEase inhibition

Figure 5. Graph for determining IC50 value of 2e for CEase inhibition
Figure 6. Graph for determining IC50 value of $1a$ for CEase inhibition

Figure 7. Graph for determining IC50 value of $1b$ for CEase inhibition

References

$^1$H NMR (300 MHz, CDCl$_3$) of 2a
$^{13}$C NMR (75.4 MHz, CDCl$_3$) of 2a

![NMR spectrum image]
$^{31}$P NMR (121 MHz, CDCl$_3$) of 2a
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$^1$H NMR (300 MHz, CDCl$_3$) of 2b

![NMR spectrum of 2b](image)
$^{13}$C NMR (75.4 MHz, CDCl$_3$) of 2b

![NMR spectrum and chemical structures](image)
$^1$H NMR (300 MHz, CDCl$_3$) of 2c
$^{13}$C NMR (75.4 MHz, CDCl$_3$) of 2c

![NMR Spectrogram](image)

(EO)$_2$(O)PO

(EO)$_2$(O)P = 2c
\(^1\)H NMR (300 MHz, CDCl\(_3\)) of 2d
$^{13}$C NMR (75.4 MHz, CDCl$_3$) of 2d
(EtO)₂(O)PO₃d
$^{13}$C NMR (75.4 MHz, CDCl$_3$) of 2e
$^{31}$P NMR (121 MHz, CDCl$_3$) of 2e