Synthesis of amino acid derived glycoconjugates and investigation of their anti-inflammatory and analgesic properties

Kiran Soni, Ajay K. Sah*

Department of Chemistry, Birla Institute of Technology and Science, Pilani, Pilani Campus, Rajasthan-333 031, India.

*To whom correspondence should be addressed. E-mail: asah@pilani.bits-pilani.ac.in, Fax: +91-1596-244183; Tel: +91-1596-515662
$^1$H NMR spectrum of Compound F2 recorded in DMSO-$d_6$
\( ^{13}C \) NMR spectrum of Compound F2 recorded in DMSO-\( d_6 \)
$^1$H NMR spectrum of Compound A2 recorded in DMSO-d$_6$
$^{13}$C NMR spectrum of Compound A2 recorded in DMSO-d$_6$
$^1$H NMR spectrum of Compound C2 recorded in DMSO-d$_6$
$^{13}$C NMR spectrum of Compound C2 recorded in DMSO-$d_6$
$^1$H NMR spectrum of Compound C3 recorded in DMSO-d$_6$
$^{13}$C NMR spectrum of Compound C3 recorded in DMSO-$d_6$
$^1$H NMR spectrum of Compound C4 recorded in DMSO-d$_6$
$^{13}$C NMR spectrum of Compound C4 recorded in DMSO-$d_6$
$^1$H NMR spectrum of Compound C5 recorded in DMSO-$d_6$
$^{13}$C NMR spectrum of Compound C5 recorded in DMSO-$d_6$
$^1$H NMR spectrum of Compound C6 recorded in DMSO-$d_6$
$^{13}$C NMR spectrum of Compound C6 recorded in DMSO-d$_6$
$^1$H-$^{13}$C COSY NMR spectrum of compound C3 recorded in DMSO-d$_6$
HRMS Spectra of C2
Electronic Supplementary Information

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HRMS Spectra of C3

Chemical Formula: C13H23N3O8

Exact Mass: 411.1689

Expected m/z for M+H⁺ = 411.1762

and for M⁻Na⁺ = 333.1581
HRMS Spectra of C4

Chemical Formula: C_{16}H_{17}N_{2}O_{6}

Exact Mass: 472.1846

Expected m/z for M + H⁺ = 473.1918

and for M + Na⁺ = 495.1738
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HRMS Spectra of C5

Chemical Formula: C_{20}H_{19}N_{2}O_{3}

Exact Mass: 495.2006

Expected m/z for M+H^+ = 496.2078
and for M+Na^+ = 518.1898
HRMS Spectra of C6

Chemical Formula: C_{27}H_{36}N_{4}O_{9}

Exact Mass: 486.2075

Expected m/z for M + H^+ = 487.2075

and for M + Na^+ = 509.1894
**ESI Figure 1.** Anti-inflammatory chart for different drug molecules. *P < 0.01 with respect to control.
### ESI Table 1. Analgesic activities of C1–C6 on Swiss Albino mice using acetic acid induced writhing model

<table>
<thead>
<tr>
<th>Label</th>
<th>Dose (mg/kg, i.p.)</th>
<th>No of writhings</th>
<th>% Reduction in pain symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid Control</td>
<td>–</td>
<td>93±10.80</td>
<td>–</td>
</tr>
<tr>
<td>C1</td>
<td>100</td>
<td>5±0.63</td>
<td>94.62</td>
</tr>
<tr>
<td>C2</td>
<td>100</td>
<td>9.16±3.47</td>
<td>90.15</td>
</tr>
<tr>
<td>C3</td>
<td>100</td>
<td>11±6.25</td>
<td>88.17</td>
</tr>
<tr>
<td>C4</td>
<td>100</td>
<td>12.8±4.12</td>
<td>86.24</td>
</tr>
<tr>
<td>C5</td>
<td>100</td>
<td>7.16±1.66</td>
<td>92.30</td>
</tr>
<tr>
<td>C6</td>
<td>100</td>
<td>9.33±3.77</td>
<td>89.97</td>
</tr>
<tr>
<td>Aspirin</td>
<td>100</td>
<td>24.5±4.06</td>
<td>73.65</td>
</tr>
</tbody>
</table>

* indicates 0.01 > P with relative to Control