Supporting Information

A supramolecular topical gel derived from a non steroidal anti-inflammatory drug-fenoprofen capable of treating skin inflammation in mice

Joydeb Majumder, Pavani Yedoti, and Parthasarathi Dastidar*

Department of Organic Chemistry, Indian Association for the Cultivation of Science,
2A & 2B Raja S. C. Mullick Road, Kolkata-700032, India.

E-mail: ocpd@iacs.res.in, Phone: +91-33-2473-4971, Fax: +91-33-2473-2805
Table of Contents

$^1$H-NMR and $^{13}$C-NMR spectra of fenoprofen derivatives 1-4 ........................................... 3-6

Gelation data (Table S1) ......................................................................................................................... 7

Dropping ball experiment for $T_{\text{gel}}$ determination ...................................................................... 7

HPLC studies of the gelator bioconjugate 2 .......................................................................................... 8-10
Figure S1: $^1$H-NMR and $^{13}$C-NMR spectra of 1 in MeOD.
Figure S2: $^1$H-NMR and $^{13}$C-NMR spectra of 2 in MeOD.
Figure S3: $^1$H-NMR and $^{13}$C-NMR spectra of 3 in MeOD.
Figure S4: $^1$H-NMR and $^{13}$C-NMR spectra of 4 in MeOD.
Table S1: Gelation data of fenoprofen derivatives 1-4a.

<table>
<thead>
<tr>
<th>Solvent/Compounds</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>P</td>
<td>CS</td>
<td>CS</td>
<td>P</td>
</tr>
<tr>
<td>Methylsalicylate</td>
<td>S</td>
<td>Gel</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Methylsalicylate and 1 % Menthol</td>
<td>S</td>
<td>Gel</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

*P = Precipitate, S = Soluble, CS = Colloidal solution, MGC = minimum gelator concentration.

Figure S5: Dropping ball experiment for \(T_{gel}\) determination.
Figure S6: Standard HPLC trace of the gelator 2.

Figure S7: HPLC traces of gelator 2 after 72 h incubation with PBS at 37° C.
Figure S8: HPLC traces of gelator 2 after 72 h incubation with carboxypeptidase-Y at 25°C.

Figure S9: HPLC traces of gelator 2 after 72 h incubation with aminopeptidase at 25°C.
Figure S10: HPLC traces of gelator 2 after 72 h incubation with blood serum of BALB/c mouse at 37º C.