

**Supplemental information:**

**Characterization of Telmisartan sulfate by <sup>1</sup>NMR (500 Mhz, CD<sub>3</sub>OD):**

δ 7.78 (d, *J* = 7.5 Hz, 1H), 7.75 (s, 1H), 7.67 (d, *J* = 7.5 Hz, 1H), 7.58-7.52 (m, 2H), 7.51 (s, 1H), 7.45 (app. t, *J* = 7.5 Hz, 1H), 7.36-7.22 (m, 7H), 5.73 (s, 2H), 4.10 (m, 2H), 3.85 (s, 3H), 3.07 (app. t, *J* = 7.5 Hz, 2H), 2.74 (s, 3H), 2.33-2.28 (m, 2H), 1.90-1.78 (m, 4H), 1.07 (t, *J* = 7 Hz, 3H); <sup>13</sup>C NMR (125 MHz, CD<sub>3</sub>OD) δ 170.7, 159.0, 156.0, 143.8, 143.3, 143.1, 142.8, 137.9, 137.6, 136.3, 132.7, 132.6, 131.8, 131.1, 130.3, 130.1, 128.7, 128.1, 125.6, 125.0, 124.1, 123.8, 119.5, 111.6, 111.2, 65.4, 48.4, 32.4, 30.4, 25.5, 23.1, 17.1, 14.4; HRMS (MM: ESI-APCI+) *m/z* calculated for C<sub>36</sub>H<sub>37</sub>N<sub>4</sub>O<sub>5</sub>S [M+2H]<sup>+</sup>: 637.2490, found 637.2493.