

Table S1 Physical data and yields of 2-acetyl-7-alkyloxybenzo[*b*]furans (**2**)

Compd	Yield (%)	m.p. (°C)	¹ H-NMR	MS <i>m/z</i> (int.)	formula HR-MS <i>m/z</i> M ⁺ Calcd (Found) or Analysis Calcd(Found)
2b	60.0	105.0-106.0	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.27 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.60 (3H, s, COCH ₃), 4.28 (2H, q, <i>J</i> 7.0, CH ₂ CH ₃), 4.90 (2H, s, OCH ₂), 6.78-7.40 (3H, m, 4-, 5-, 6-H) 7.50 (1H, s, 3-H)	262(M ⁺ , 100.00)	C ₁₄ H ₁₄ O ₅ 262.0041 (262.0845)
2c	72.2	47.1-48.4	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.30 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.10-2.40 (4H, m, OCH ₂ CH ₂ CH ₂), 2.70 (3H, s, COCH ₃), 4.25 (2H, q, <i>J</i> 7.0, CH ₂ CH ₃), 4.35 (2H, t, <i>J</i> 6.0, OCH ₂ CH ₂ CH ₂), 6.95-6.30 (3H, m, 4-, 5-, 6-H), 7.60 (1H, s, 3-H)	290(M ⁺ , 15.51), 115(100.00)	C ₁₆ H ₁₈ O ₅ 290.1154 (290.1153)
2d	67.8	88.0-88.6	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.46 (6H, d, <i>J</i> 6.0, CH(CH ₃) ₂), 2.65 (3H, s, COCH ₃), 4.79 (1H, m, CH(CH ₃) ₂), 6.90-7.40 (3H, m, 4-, 5-, 6-H), 7.55 (1H, s, 3-H)	218(M ⁺ , 25.94), 161(100.00)	C ₁₃ H ₁₄ O ₃ 218.0943 (218.0940)
2e	58.4	113.0-115.6	δ_{H} (60 MHz; <i>d</i> ₆ -acetone, Me ₄ Si) 2.60 (3H, s, COCH ₃), 6.80 (1H, s, OCH(C ₆ H ₅) ₂), 7.12-7.68 (13H, m, arom. H), 7.70 (1H, s, 3-H)	342(M ⁺ , 1.45), 167(100.00)	C ₂₃ H ₁₈ O ₃ 342.1256 (342.1257)
2f	71.6	67.2-68.2	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.81-2.97 (2H, \square , CH ₂ CH ₂ CH ₂), 2.60 (3H, s, COCH ₃), 3.80 (2H, \square , <i>J</i> 7.0, CH ₂ CH ₂ CH ₂), 4.30 (2H, \square , <i>J</i> 7.0, CH ₂ CH ₂ CH ₂), 6.72-7.80 (3 \square , \square , 4-, 5-, 6-H \square , 7.42 (1 \square , \square , 3-H)	252(M ⁺ , 40.13), 176(100.00)	C ₁₃ H ₁₃ ClO ₃ 252.0553 (252.0555)
2g	27.0	131.0-132.0	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.00 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃ or OCH ₂ CH ₃), 1.30 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃ or OCH ₂ CH ₃), 2.70 (3H, s, COCH ₃), 2.80-3.20 (2H, m, NHCH ₂ CH ₃), 4.30 (2H, q, <i>J</i> 7.0, OCH ₂ CH ₃), 5.20 (2H, s, OCH ₂ CO), 7.20 (1H, d, <i>J</i> 8.4, 6-H), 7.90 (1H, d, <i>J</i> 8.4, 5-H), 8.10 (1H, s, 3-H)	369(M ⁺ , 100.00)	C ₁₆ H ₁₉ O ₇ NS 369.0883 (369.0880)
2h	49.3	94.1-96.2	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.05 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃ or OCH ₂ CH ₃), 1.25 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃ or OCH ₂ CH ₃), 2.10-2.55 (4H, m, OCH ₂ CH ₂ CH ₂), 2.60 (3H, s, COCH ₃), 2.88-3.10 (2H, m, NHCH ₂ CH ₃), 4.15 (2H, q, <i>J</i> 7.0, OCH ₂ CH ₃), 4.30 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂), 7.03 (1H, d, <i>J</i> 8.0, 6-H), 7.86 (1H, d, <i>J</i> 8.0, 5-H), 7.97 (1H, s, 3-H)	397(M ⁺ , 4.26), 115(100.00)	C ₁₈ H ₂₃ NO ₇ S C;54.40 (54.42) H;5.83 (6.12) N;3.52 (3.97)
2i	59.8	77.7-79.0	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 2.32-2.85 (2H, m, CH ₂ CH ₂ CH ₂), 2.59 (2H, m, CH ₂ CH ₂ CH ₂), 2.70 (3H, s, COCH ₃), 3.72 (3H, s, OCH ₃), 3.88 (3H, s, OCH ₃), 4.51 (2H, t, CH ₂ CH ₂ CH ₂), 6.49-7.38 (5H, m, 1', 4', 5'-H), 7.10 (1H, d, <i>J</i> 8.0, 6-H) 7.80 (1H, d, <i>J</i> 8.0, 5-H), 7.82 (H, s, 3-H)	495(M ⁺ , 49.18), 315(100.00)	C ₂₃ H ₂₆ CINO ₇ S C;55.70 (55.43) H;5.28 (5.40) N;2.82 (2.78)
2j	78.9	84.5-84.8	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.23 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.95-2.45 (4H, m, OCH ₂ CH ₂ CH ₂), 2.60 (3H, s, COCH ₃), 4.19 (2H, q, <i>J</i> 7.0, CH ₂ CH ₃), 4.23 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂ CH ₂), 6.84 (1H, d, <i>J</i> 7.0, 6-H), 7.40 (1H, s, 5-H), 7.50 (1H, s, 3-H)	370(M ⁺ , 11.24), 115(100.00)	C ₁₆ H ₁₇ BrO ₅ 368.0260 (368.0245)
2k	56.5	128.8-131.8	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.80 (3H, d, <i>J</i> 7.0, OCHCH ₃), 2.68 (3H, s, COCH ₃), 5.00-6.00 (1H, m, OCH(CH ₃)), 7.21-7.69 (8H, m, 3-, 5-, 6-H, phenyl H)	358(M ⁺ , 6.25), 105(100.00)	C ₁₈ H ₁₅ O ₃ Br 358.0206 (358.0205)
2l	85.7	178.0-179.9	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.59 (3H, s, COCH ₃), 5.46 (2H, s, OCH ₂ CO), 6.06 (2H, s, OCH ₂ O), 6.82 (1H, d, <i>J</i> 8.4, 6-H), 6.89 (1H, d, <i>J</i> 8.0, 5'-H), 7.31 (1H, d, <i>J</i> 8.4, 5-H), 7.47 (1H, s, 3-H), 7.48 (1H, m, 2'-H), 7.64 (1H, dd, <i>J</i> 8.0 and 1.4, 6-H)	416(M ⁺ , 34.2), 149(100.00)	C ₁₉ H ₁₃ BrO ₆ C;54.70 (54.66) H;3.14 (3.04)
2m	67.8	125.3-128.3	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.63 (3H, s, COCH ₃), 6.50 (1H, s, OCH), 6.82 (1H, d, <i>J</i> 8.4, 6-H), 7.21 (1H, d, <i>J</i> 8.4, 5-H), 7.26-7.49 (11H, m, 3-H and CH(C ₆ H ₅) ₂)	420(M ⁺ , 3.24), 167(100.00)	C ₂₃ H ₁₄ BrO ₃ 420.0362 (420.0363)

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2n	73.8	67.6-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.41 (6H, s, N(CH ₃) ₂), 2.62 (3H, s, COCH ₃), 2.87 (2H, t, <i>J</i> 2.3, OCH ₂ CH ₂ N), 4.33 (2H, t, <i>J</i> 2.3, OCH ₂ CH ₂ N), 6.86 (1H, d, <i>J</i> 8.5, 6-H), 7.34 (1H, d, <i>J</i> 8.5, 5-H), 7.49 (1H, s, 3-H)	325(M ⁺ , 32.37), 58(100.00)	C ₁₄ H ₁₆ NBrO ₃ 325.0314 (325.0310)
2o	76.0	114.2-	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 2.20-2.42 (2H, m, OCH ₂ CH ₂ CH ₂), 2.62 (3H, s, COCH ₃), 3.81 (2H, t, <i>J</i> 6.6, OCH ₂ CH ₂ CH ₂), 4.33 (2H, t, <i>J</i> 6.6, OCH ₂ CH ₂ CH ₂), 6.87 (1H, d, <i>J</i> 8.4, 6-H), 7.25-7.41 (2H, m, 3-H and 5-H)	330(M ⁺ , 55.32), 254(100.00)	C ₁₃ H ₁₂ BrClO ₃ 331.9637 (329.9650)
2p	39.0	46.5-	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.30 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.05-2.45 (4H, m, OCH ₂ CH ₂ CH ₂), 2.60 (3H, s, COCH ₃), 4.20 (2H, q, <i>J</i> 7.0, CH ₂ CH ₃), 4.57 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂ CH ₂), 7.47 (1H, s, 5-H or 3-H), 7.67 (1H, s, 5-H or 3-H)	450(M ⁺ , 4.06), 115(100.00)	C ₁₆ H ₁₆ NBr ₂ O ₅ 445.9364 (445.9367)
2q	67.6	68.0-	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.75 (3H, d, <i>J</i> 6.6, CH(CH ₃)), 2.63 (3H, s, COCH ₃), 7.40-7.46 (4H, m, 3-, 4-, 5-, 6-H)	280(M ⁺ , 6.39), 105(100.00)	-

2a : see ref. 14

Table S2 Physical data and yields of 2-(2-alkylcarbamoyl-1-methylvinyl)benzo[*b*]furans (**4**)

Compd	yield (%)	m.p. (°C)	¹ H-NMR	MS m/z (int.)	formula HR-MS m/z M ₊ Calcd (Found) or Analysis Calcd(Found)
(E)-4a	30.8	oil	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 1.20 (3H, t, <i>J</i> 7.4, CH ₂ CH ₃), 1.21 (3H, t, <i>J</i> 7.4, CH ₂ CH ₃), 1.24 (3H, t, <i>J</i> 7.4, CH ₂ CH ₃), 2.19 (2H, m, OCH ₂ CH ₂ CH ₂), 2.30 (3H, d, <i>J</i> 0.9, CH=CCH ₃), 2.58 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 3.45 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 3.49 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 4.14 (2H, q, <i>J</i> 7.3, COOCH ₂ CH ₃), 4.26 (2H, t, <i>J</i> 6.5, OCH ₂ CH ₂ CH ₂), 6.80 (1H, s, 3-H), 6.82 (1H, d, <i>J</i> 7.8, 4-H or 6-H), 6.89 (1H, d, <i>J</i> 0.9, CH=CCH ₃), 7.10 (1H, dd, <i>J</i> 7.8, 5-H), 7.15 (1H, dd, <i>J</i> 7.8 and 0.9, 4-H or 6-H)	387(M ⁺ , 44.39), 115(100.00)	C ₂₂ H ₂₉ NO ₅ 387.2046 (387.2045)
(Z)-4a	8.0	oil	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 1.03 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.22 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.26 (3H, t, <i>J</i> 7.4, CH ₂ CH ₃), 2.16 (2H, m, OCH ₂ CH ₂ CH ₂), 2.22 (3H, d, <i>J</i> 1.3, CH=CCH ₃), 2.56 (2H, t, <i>J</i> 7.7, OCH ₂ CH ₂ CH ₂), 3.34 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 3.52 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 4.15 (2H, q, <i>J</i> 7.4, COOCH ₂ CH ₃), 4.22 (2H, t, <i>J</i> 6.4, OCH ₂ CH ₂ CH ₂), 6.00 (1H, d, <i>J</i> 1.3, CH=CCH ₃) 6.77 (1H, dd, <i>J</i> 7.8 and 1.1, 4-H or 6-H), 6.83 (1H, s, 3-H), 7.07 (1H, dd, <i>J</i> 7.8, 5-H), 7.11 (1H, dd, <i>J</i> 7.8 and 1.4, 4-H or 6-H)	387(M ⁺ , 53.86), 115(100.00)	C ₂₂ H ₂₉ NO ₅ 387.2046 (387.2046)
(E)-4b	10.1 116.8	113.9-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.25 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.25 (2H, m, OCH ₂ CH ₂ CH ₂), 2.62 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.66 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂ CH ₂), 3.82 (3H, s, OCH ₃), 4.17 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 4.31 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 6.67 (1H, ddd, <i>J</i> 8.1 and 1.8 and 0.7, 4'-H), 6.79 (1H, q, <i>J</i> 1.4, CH=CCH ₃), 6.89 (1H, dd, <i>J</i> 7.9 and 1.1, 4-H or 6-H), 6.94 (1H, s, 3-H), 7.12 (1H, d, <i>J</i> 7.7, 6'-H), 7.12 (1H, dd, <i>J</i> 7.7, 5-H), 7.20 (1H, dd, <i>J</i> 7.9 and 1.1, 4-H or 6-H), 7.22 (1H, dd, <i>J</i> 8.1, 5'-H), 7.46 (1H, brs, 2'-H), 8.04 (1H, brs, NH)	437(M ⁺ , 54.28), 315(100.00)	C ₂₅ H ₂₇ NO ₆ 437.1838 (437.1838)
(E)-4b'	- 157.5	155.5-	δ_{H} (400 MHz; <i>d</i> ₆ -acetone; Me ₄ Si), 2.19 (2H, m, OCH ₂ CH ₂ CH ₂), 2.61 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 2.62 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.80 (3H, s, OCH ₃), 4.35 (2H, t, <i>J</i> 6.6, OCH ₂ CH ₂ CH ₂), 6.65 (1H, ddd, <i>J</i> 8.5 and 2.1 and 1.0, 4'-H), 6.87 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 7.01 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 7.15 (1H, dd, <i>J</i> 7.7, 5-H), 7.19 (1H, s, 3-H), 7.22 (1H, dd, <i>J</i> 8.0, 5'-H), 7.23 (1H, dd, <i>J</i> 1.1 and 7.7, 4-H or 6-H), 7.31 (1H, m, 6'-H), 7.57 (1H, m, 2'-H), 9.43 (1H, brs, NH)	409(M ⁺ , 26.39), 287(100.00)	C ₂₃ H ₂₃ O ₆ N 419.1525 (409.1533)
(E)-4c	39.6 141.5	141.3-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.24 (3H, t, <i>J</i> 7.0, OCH ₂ CH ₃), 2.25 (2H, m, OCH ₂ CH ₂ CH ₂), 2.62 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.66 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂ CH ₂), 3.80 (3H, s, OCH ₃), 4.17 (2H, q, <i>J</i> 7.0, OCH ₂ CH ₃), 4.31 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂ CH ₂), 6.78 (1H, q, <i>J</i> 1.1, CH=CCH ₃), 6.88 (2H, m, 3'-, 5'-H), 6.92 (1H, s, 3-H), 6.95 (1H, dd, <i>J</i> 7.7 and 0.7, 6-H), 7.11 (1H, d, <i>J</i> 7.7, 5-H), 7.19 (1H, dd, <i>J</i> 7.7 and 0.7, 4-H), 7.56 (1H, d, <i>J</i> 8.8, 2'-, 6'-H), 7.90 (1H, brs, NH, Exchange with D ₂ O)	437(M ⁺ , 58.89), 315(100.00)	C ₂₅ H ₂₇ NO ₆ 437.1839 (437.1844)
(Z)-4c	7.4	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.24 (3H, t, <i>J</i> 7.3, OCH ₂ CH ₃), 1.96 (2H, m, OCH ₂ CH ₂ CH ₂), 2.32 (3H, s, CH=CCH ₃), 2.39 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 3.77 (3H, s, OCH ₃), 4.11 (2H, q, <i>J</i> 7.3, OCH ₂ CH ₃), 4.13 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂ CH ₂), 6.04 (1H, s, CH=CCH ₃), 6.79 (1H, dd, <i>J</i> 7.7 and 0.8, 6-H), 6.84 (2H, d, <i>J</i> 8.8, 3'-, 5'-H), 7.06 (1H, s, 3-H), 7.08 (1H, d, <i>J</i> 7.7, 5-H), 7.13 (1H, dd, <i>J</i> 7.7 and 1.0, 4-H), 7.46 (1H, d, <i>J</i> 8.8, 2'-, 6'-H), 7.73 (1H, brs, NH, Exchange with D ₂ O)	-	C ₂₅ H ₂₇ NO ₆ 437.1838 (437.1841)

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(E)-4d	39.8	114.0- 115.5	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 1.24 (3H, t, <i>J</i> 7.4, OCH ₂ CH ₃), 2.21 (2H, m, OCH ₂ CH ₂ CH ₂), 2.55 (3H, d, <i>J</i> 1.0, CH=CCH ₃), 2.59 (2H, t, <i>J</i> 6.9, OCH ₂ CH ₂ CH ₂), 2.84 (2H, t, <i>J</i> 7.3, NHCH ₂ CH ₂), 3.61 (2H, m, NHCH ₂ CH ₂), 3.86 (3H, s, OCH ₃), 3.87 (3H, s, OCH ₃), 4.12 (2H, q, <i>J</i> 6.9 OCH ₂ CH ₃), 4.26 (2H, t, <i>J</i> 6.4, OCH ₂ CH ₂ CH ₂), 5.99 (1H, t, <i>J</i> 5.9, NH), 6.58 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.76-6.85 (4H, m, 2'-, 5'-, 6'-H, 4-H or 6-H), 6.89 (1H, s, 3-H), 7.10 (1H, dd, <i>J</i> 7.8, 5-H), 7.14 (1H, d, <i>J</i> 7.3, 4-H or 6-H)	495(M ⁺ , 64.00) 164(100.00)	C ₂₈ H ₃₃ NO ₇ 495.2257 (495.2247)
(Z)-4d	13.7	oil	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 1.24 (3H, t, <i>J</i> 7.3, OCH ₂ CH ₃), 2.14 (2H, m, OCH ₂ CH ₂ CH ₂), 2.19 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.53 (2H, t, <i>J</i> 7.4, OCH ₂ CH ₂ CH ₂), 2.80 (2H, t, <i>J</i> 6.8, NHCH ₂ CH ₂), 3.61 (2H, m, <i>J</i> 6.4, NHCH ₂ CH ₂), 3.72 (3H, s, OCH ₃), 3.81 (3H, s, OCH ₃), 4.14 (2H, q, <i>J</i> 7.4 OCH ₂ CH ₃), 4.22 (2H, t, <i>J</i> 6.4, OCH ₂ CH ₂ CH ₂), 5.79 (1H, brs, NH), 5.93 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.62-6.70 (3H, m, 2'-, 5'-, 6'-H), 6.81 (1H, dd, <i>J</i> 7.8 and 1.4), 6.99 (1H, s, 3-H), 7.10 (1H, dd, <i>J</i> 7.8, 5-H), 7.14 (1H, d, <i>J</i> 7.8 and 1.4, 4-H or 6-H)	495(M ⁺ , 64.00) 164(100.00)	C ₂₈ H ₃₃ NO ₇ 495.2251 (495.2250)
(E)-4d'	75.7	60.1- 62.4	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 2.15 (2H, m, OCH ₂ CH ₂ CH ₂), 2.54 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.57, 2.58 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 2.81 (2H, t, <i>J</i> 7.8, NHCH ₂ CH ₂), 3.50-3.57 (2H, m, NHCH ₂ CH ₂), 3.77 (3H, s, OCH ₃), 3.80 (3H, s, OCH ₃), 4.29, 4.31 (2H, t, <i>J</i> 6.5, OCH ₂ CH ₂ CH ₂), 6.67, 6.68 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.67 (1H, dd, <i>J</i> 8.2 and 1.9, 4-H or 6-H), 6.85 (1H, dd, <i>J</i> 7.8 and 1.4, 5'-H), 6.88 (1H, d, <i>J</i> 2.2, 2'-H), 6.94-6.97 (1H, m, 6'-H), 7.08 (1H, s, 3-H), 7.14 (1H, dd, <i>J</i> 7.8, 5-H), 7.20 (1H, dd, <i>J</i> 7.3 and 0.9, 4-H or 6-H), 7.42-7.44 (1H, m, NH)	467(M ⁺ , 3.85), 164(100.00)	C ₂₆ H ₂₉ NO ₇ 467.1944 (467.1942)
(E)-4e	39.6	124.5- 127.5	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.25 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.25 (2H, m, OCH ₂ CH ₂ CH ₂), 2.62 (3H, s, CH=CCH ₃), 2.67 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂ CH ₂), 3.87 (3H, s, OCH ₃), 3.91 (3H, s, OCH ₃), 4.17 (2H, q, <i>J</i> 7.0, CH ₂ CH ₃), 4.31 (2H, t, <i>J</i> 6.5, OCH ₂ CH ₂ CH ₂), 6.78 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.82 (1H, d, <i>J</i> 8.7, 5'-H), 6.88 (1H, d, <i>J</i> 7.8, 4-H or 6-H), 6.94 (1H, s, 3-H), 7.10 (1H, dd, <i>J</i> 8.7 and 2.3, 6'-H), 7.12 (1H, dd, <i>J</i> 7.8, 5-H), 7.20 (1H, d, <i>J</i> 7.8, 4-H or 6-H), 7.54 (1H, d, <i>J</i> 1.8, 2'-H), 7.94 (1H, brs, NH)	467(M ⁺ , 53.98), 153(100.00)	C ₂₆ H ₂₉ NO ₇ 467.1944 (467.1944)
(Z)-4e	24.5	101.5- 105.0	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.25 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.95 (2H, m, OCH ₂ CH ₂ CH ₂), 2.24 (3H, s, CH=CCH ₃), 2.38 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 3.82 (3H, s, OCH ₃), 3.84 (3H, s, OCH ₃), 4.10 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 4.14 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 6.05 (1H, s, CH=CCH ₃), 6.78 (1H, d, <i>J</i> 8.8, 5'-H), 6.79 (1H, dd, <i>J</i> 7.8 and 1.1, 4-H or 6-H), 6.97 (1H, dd, <i>J</i> 8.8 and 2.2, 6'-H), 7.08 (1H, s, 3-H), 7.08 (1H, dd, <i>J</i> 7.7, 5-H), 7.14 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 7.31 (1H, d, <i>J</i> 2.0, 2'-H), 7.73 (1H, brs, NH)	-	C ₂₆ H ₂₉ NO ₇ 467.1944 (467.1942)
(E)-4f	24.6	90.0- 94.8	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.25 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.02 (2H, m, OCH ₂ CH ₂ CH ₂), 2.03 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.58 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 3.60-3.75 (8H, m, OCH ₂ CH ₂ N ₂), 4.15 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 4.25 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 6.83 (1H, s, 3-H), 6.84 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.85 (1H, dd, <i>J</i> 6.2 and 1.4, 4-H or 6-H), 7.11 (1H, dd, <i>J</i> 7.7, 5-H), 7.15 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H)	401(M ⁺ , 52.79), 115(100.00)	C ₂₂ H ₂₇ NO ₆ , 401.1839, (401.1838)
(Z)-4f	13.0	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.25 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.18 (2H, m, OCH ₂ CH ₂ CH ₂), 2.20 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.57 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 3.44-3.53 (4H, m, NCH ₂ CH ₂ O), 3.74-3.81 (4H, m, NCH ₂ CH ₂ O), 4.15 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 4.21 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 5.94 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.78 (1H, s, 3-H), 6.80 (1H, dd, <i>J</i> 7.4 and 1.8, 4-H or 6-H), 7.11 (1H, dd, <i>J</i> 7.7, 5-H), 7.13 (1H, dd, <i>J</i> 7.7 and 1.4, 4-H or 6-H)	401(M ⁺ , 52.79), 115(100.00)	C ₂₂ H ₂₇ NO ₆ , 401.1839, (401.1840)

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(E)-4g	56.6	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.20 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃), 1.21 (3H, t, <i>J</i> 7.3, NCH ₂ CH ₃), 1.42 (6H, d, <i>J</i> 5.9, OCH(CH ₃) ₂), 2.30 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 3.43 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.48 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 4.79 (1H, m, OCH(CH ₃) ₂), 6.79 (1H, s, 3-H), 6.85 (1H, dd, <i>J</i> 7.9 and 1.1, 4-H or 6-H), 6.88 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 7.08 (1H, dd, <i>J</i> 7.7, 5-H), 7.15 (1H, dd, <i>J</i> 7.9 and 1.1, 4-H or 6-H)	315(M ⁺ , 100.00)	C ₁₉ H ₂₅ NO ₃ 315.1834 (315.1834)
(Z)-4g	19.9	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.01 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃), 1.22 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃), 1.37 (6H, d, <i>J</i> 5.9, OCH(CH ₃) ₂), 2.20 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 3.33 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.53 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 4.75 (1H, m, OCH(CH ₃) ₂), 6.00 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.78 (1H, dd, <i>J</i> 7.7 and 1.4, 4-H or 6-H), 6.82 (1H, s, 3-H), 7.06 (1H, dd, <i>J</i> 7.7, 5-H), 7.10 (1H, dd, <i>J</i> 7.7 and 1.5, 4-H or 6-H)	315(M ⁺ , 74.99) 201(100.00)	C ₁₉ H ₂₅ NO ₃ 315.1834 (315.1830)
(E)-4h	51.9	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.19 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃), 1.20 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃), 2.31 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.43 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.49 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 6.48 (1H, s, OCH), 6.78 (1H, s, 3-H), 6.80 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 6.88 (1H, q, <i>J</i> 1.1, CH=CCH ₃), 6.98 (1H, dd, <i>J</i> 7.7, 5-H), 7.12 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 7.24-7.35 (6H, m, phenyl-H), 7.48-7.51 (4H, m, phenyl-H)	439(M ⁺ , 9.63) 167(100.00)	C ₂₉ H ₂₉ O ₃ N 439.2148 (439.2148)
(Z)-4h	27.8	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 0.92 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃), 0.97 (3H, t, <i>J</i> 7.0, NCH ₂ CH ₃), 2.20 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.23 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.30 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 6.00 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.50 (1H, s, OCH), 6.73 (1H, dd, <i>J</i> 8.1 and 1.1, 4-H or 6-H), 6.80 (1H, s, 3-H), 6.94 (1H, dd, <i>J</i> 8.1, 5-H), 7.01 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 7.25-7.32 (6H, m, phenyl-H), 7.43-7.50 (4H, m, phenyl-H)	439(M ⁺ , 9.63) 167(100.00)	C ₂₉ H ₂₉ O ₃ N 439.2148 (439.2145)
(E)-4i	39.5	167.2-	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 2.59 (3H, d, <i>J</i> 1.0, CH=CCH ₃), 3.82 (3H, s, OCH ₃), 6.45 (1H, s, OCH), 6.50 (1H, s, CH=CCH ₃), 6.67 (1H, dd, <i>J</i> 8.3 and 2.3, 4'-H), 6.83 (1H, d, <i>J</i> 7.8, 4-H or 6-H), 6.94 (1H, s, 3-H), 7.01 (1H, dd, <i>J</i> 8.3, 5-H), 7.04-7.06 (1H, m, 6'-H), 7.15 (1H, d, <i>J</i> 7.8, 4-H or 6-H), 7.22 (1H, dd, <i>J</i> 8.3, 5'-H), 7.30-7.50 (12H, m, phenyl-H, 2'-H, NH)	489(M ⁺ , 19.13) 167(100.00)	C ₂₉ H ₂₉ O ₃ N 489.1940 (489.1947)
(E)-4j	59.7	191.4-	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 2.60 (3H, s, CH=CCH ₃), 3.80 (3H, s, OCH ₃), 6.45 (1H, s, OCH), 6.50 (1H, s, CH=CCH ₃), 6.82 (1H, d, <i>J</i> 7.8, 4-H or 6-H), 6.85-6.89 (2H, m, 3'-, 5'-H), 6.92 (1H, s, 3-H), 7.01 (1H, dd, <i>J</i> 7.8, 5-H), 7.15 (1H, d, <i>J</i> 7.8, 6-H or 4-H), 7.18-7.51 (13H, m, phenyl-H, 2'-, 6'-H, NH)	489(M ⁺ , 6.21) 167(100.00)	C ₃₂ H ₂₇ NO ₄ 489.1940 (489.1930)
(E)-4k	14.0	93.9-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.59 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.87 (3H, s, OCH ₃), 3.91 (3H, s, OCH ₃), 6.45 (1H, s, OCH), 6.51 (1H, s, CH=CCH ₃), 6.83 (1H, d, <i>J</i> 7.7, 4-H or 6-H), 6.81-6.84 (1H, m, 5'-H), 6.93 (1H, s, 3-H), 6.94-6.96 (1H, m, 6'-H), 7.01 (1H, dd, <i>J</i> 7.7, 5-H), 7.15 (1H, d, <i>J</i> 7.7, 4-H or 6-H), 7.26-7.50 (12H, m, phenyl-H, 2'-H, NH)	519(M ⁺ , 24.13) 167(100.00)	C ₃₃ H ₂₉ NO ₅ 519.2046 (519.2046)
(Z)-4k	0.8	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.59 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.89 (3H, s, OCH ₃), 3.91 (3H, s, OCH ₃), 6.09 (1H, s, CH=CCH ₃), 6.47 (1H, s, OCH), 6.56 (1H, d, <i>J</i> 8.4, 5'-H), 6.82 (1H, d, <i>J</i> 7.3, 4-H or 6-H), 6.89 (1H, d, <i>J</i> 7.0, 6'-H), 7.00 (1H, dd, <i>J</i> 7.7, 5-H), 7.08 (1H, s, 3-H), 7.11 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 7.19-7.50 (12H, m, phenyl-H, 2'-H, NH)	-	C ₃₃ H ₂₉ NO ₅ 519.2046 (519.2047)
(E)-4l	48.0	78.0-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.53 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.83 (2H, t, <i>J</i> 7.0, NHCH ₂ CH ₂), 3.60 (2H, q, <i>J</i> 7.0, NHCH ₂ CH ₂), 3.85 (3H, s, OCH ₃), 3.86 (3H, s, OCH ₃), 5.65 (1H, t, <i>J</i> 5.8, NH), 6.36 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.42 (1H, s, OCH), 6.76-6.83 (3H, m, 2'-, 5'-, 6'-H), 6.81 (1H, dd, <i>J</i> 8.0 and 0.7, 4-H or 6-H), 6.87 (1H, s, 3-H), 7.00 (1H, dd, <i>J</i> 7.7, 5-H), 7.13 (1H, dd, <i>J</i> 7.9 and 0.7, 4-H or 6-H), 7.23-7.35 (6H, m, phenyl-H), 7.45-7.47 (4H, m, phenyl-H)	547(M ⁺ , 9.33) 167(100.00)	C ₃₅ H ₃₃ NO ₅ 547.2358 (547.2373)

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(Z)-4l	16.4	oil	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 2.18 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.59 (2H, t, <i>J</i> 6.9, NHCH ₂ CH ₂), 3.43 (2H, q, <i>J</i> 6.4, NHCH ₂ CH ₂), 3.66 (3H, s, OCH ₃), 3.79 (3H, s, OCH ₃), 5.73 (1H, t, <i>J</i> 5.0, NH), 5.94 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.50-6.52 (3H, m, OCH, 2'-H, 5'-H or 6'-H), 6.63-6.65 (1H, d, <i>J</i> 8.7, 5'-H or 6'-H), 6.79 (1H, dd, <i>J</i> 7.8 and 1.0, 4-H or 6-H), 6.94 (1H, s, 3-H), 6.99 (1H, dd, <i>J</i> 7.8, 5-H), 7.10 (1H, dd, <i>J</i> 7.8 and 0.9, 4-H or 6-H), 7.21-7.33 (6H, m, phenyl-H), 7.45-7.49 (4H, m, phenyl-H)	-	C ₃₅ H ₃₃ NO ₅ 547.2358 (547.2358)
(E)-4m	15.1	147.4-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.29 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.54-3.73 (8H, m, NCH ₂ CH ₂ O ₂), 6.45 (1H, s, OCH), 6.78-6.91 (1H, m, 4-H or 6-H), 6.78-6.80 (1H, m, CH=CCH ₃), 6.81 (1H, s, 3-H), 7.00 (1H, dd, <i>J</i> 8.1, 5-H), 7.13 (1H, dd, <i>J</i> 7.9 and 1.0, 4-H or 6-H), 7.24-7.36 (4H, m, phenyl-H), 7.46-7.50 (6H, m, phenyl-H)	453(M ⁺ , 22.20) 167(100.00)	C ₂₉ H ₂₇ NO ₄ 453.1939 (453.1940)
(Z)-4m	11.3	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.19 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 3.29-3.42 (8H, m, NCH ₂ CH ₂ O ₂), 5.93 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.50 (1H, s, OCH), 6.75 (1H, s, 3-H), 6.76 (1H, d, <i>J</i> 7.0, 4-H or 6-H), 6.97 (1H, dd, <i>J</i> 7.7, 5-H), 7.09 (1H, d, <i>J</i> 7.3, 4-H or 6-H), 7.23-7.51 (10H, m, phenyl-H)	-	C ₂₉ H ₂₇ NO ₄ 453.1935 (453.1940)
(E)-4n	65.0	53.7-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.20 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.21 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.24 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.18 (2H, m, OCH ₂ CH ₂ CH ₂), 2.30 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.57 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 3.40 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.53 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 4.14 (2H, q, <i>J</i> 7.3, OCH ₂ CH ₃), 4.23 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 6.70 (1H, d, <i>J</i> 8.8, 6-H), 6.80 (1H, s, 3-H), 6.90 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 7.23 (1H, d, <i>J</i> 8.8, 5-H)	465(M ⁺ , 10.41) 115(100.00)	C ₂₂ H ₂₈ BrNO ₅ 465.1151 (465.1154)
(Z)-4n	4.02	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.04 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.24 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.25 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.14 (2H, m, OCH ₂ CH ₂ CH ₂), 2.22 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 2.54 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 3.34 (2H, q, <i>J</i> 6.9, NCH ₂ CH ₃), 3.52 (2H, q, <i>J</i> 6.9, NCH ₂ CH ₃), 4.14 (2H, q, <i>J</i> 7.3, OCH ₂ CH ₃), 4.18 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 6.05 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.66 (1H, d, <i>J</i> 8.7, 6-H), 6.82 (1H, s, 3-H), 7.20 (1H, d, <i>J</i> 8.4, 5-H)	465(M ⁺ , 25.05) 115(100.00)	C ₂₂ H ₂₈ BrNO ₅ 465.1151 (465.1148)
(E)-4n'	76.5	125.5-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.20 (6H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.18 (2H, m, OCH ₂ CH ₂ CH ₂), 2.27 (3H, d, <i>J</i> 0.8, CH=CCH ₃), 2.61 (2H, t, <i>J</i> 7.0, OCH ₂ CH ₂ CH ₂), 3.40-3.50 (4H, m, NCH ₂ CH ₃), 4.24 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 6.69 (1H, d, <i>J</i> 8.8, 6-H), 6.79 (1H, s, 3-H), 6.89 (1H, d, <i>J</i> 0.7, CH=CCH ₃), 7.22 (1H, d, <i>J</i> 8.4, 5-H)	439(100.00) 437(M ⁺ , 97.71)	C ₂₀ H ₂₄ BrNO ₅ 437.1838 (437.0835)
(E)-4o	57.0	176.4-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.38 (6H, s, NCH ₃ ×2), 2.58 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.85 (2H, t, <i>J</i> 5.9, OCH ₂ CH ₂), 3.80 (3H, s, OCH ₃), 4.32 (2H, t, <i>J</i> 5.8, OCH ₂ CH ₂), 6.66 (1H, ddd, <i>J</i> 8.4 and 2.5 and 0.8, 4'-H), 6.73 (1H, s, CH=CCH ₃), 6.74 (1H, d, <i>J</i> 8.4, 6-H), 6.91 (1H, s, 3-H), 7.08 (1H, d, <i>J</i> 7.6, 6'-H), 7.21 (1H, dd, <i>J</i> 8.0, 5'-H), 7.23 (1H, d, <i>J</i> 8.4, 5-H)	472(M ⁺ , 55.06) 58(100.00)	C ₂₃ H ₂₅ BrN ₂ O ₄ 472.0998 (472.1001)
(E)-4p	5.9	114.9-	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 1.07 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.20 (6H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.28 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.29 (3H, d, <i>J</i> 1.0, CH=CCH ₃), 3.00 (2H, m, SO ₂ NHCH ₂ CH ₃), 3.43 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 3.50 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 4.29 (2H, q, <i>J</i> 7.3, OCH ₂ CH ₃), 4.34 (1H, t, <i>J</i> 5.98, NH), 4.94 (2H, s, OCH ₂), 6.80 (1H, d, <i>J</i> 8.1, 6-H), 6.92 (1H, d, <i>J</i> 1.3, CH=CCH ₃), 7.22 (1H, s, 3-H), 7.68 (1H, d, <i>J</i> 8.5, 5-H)	466(M ⁺ , 64.19) 393(100.00)	C ₂₂ H ₃₀ N ₂ O ₇ S 466.1774 (466.1775)
(Z)-4p	5.3	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.05 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.07 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.25 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.29 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.23 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 2.91-2.98 (2H, m, SO ₂ NHCH ₂ CH ₃), 3.37 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 3.54 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 4.27 (2H, q, <i>J</i> 7.3, OCH ₂ CH ₃), 4.30 (1H, t, <i>J</i> 6.3, NH), 4.87 (2H, s, OCH ₂), 6.13 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.76 (1H, d, <i>J</i> 8.8, 6-H), 7.23 (1H, s, 3-H), 7.67 (1H, d, <i>J</i> 8.4, 5-H)	466(M ⁺ , 71.43) 393(100.00)	C ₂₂ H ₃₀ N ₂ O ₇ S 466.1774 (466.1771)

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(E)-4q	6.1	128.2-130.1	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.07 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.25 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.29 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.35 (3H, t, <i>J</i> 6.9, CH ₂ CH ₃), 2.23 (2H, m, OCH ₂ CH ₂ CH ₂), 2.30 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 2.58 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 2.98 (2H, m, SO ₂ NHCH ₂ CH ₃), 3.43 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.45 (2H, q, <i>J</i> 6.9, NCH ₂ CH ₃), 4.18 (2H, q, <i>J</i> 7.4, OCH ₂ CH ₃), 4.32 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 4.33 (1H, t, <i>J</i> 6.3, NH), 4.87 (2H, s, OCH ₂), 6.85 (1H, d, <i>J</i> 8.4, 6-H), 6.93 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 7.20 (1H, s, 3-H), 7.67 (1H, d, <i>J</i> 8.8, 5-H)	494(M ⁺ , 48.01) 115(100.00)	C ₂₄ H ₃₄ N ₂ O ₇ S 494.2084 (494.2085)
(Z)-4q	46.5	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.05 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.13 (3H, t, <i>J</i> 7.1, CH ₂ CH ₃), 1.20 (3H, t, <i>J</i> 7.1, CH ₂ CH ₃), 1.26 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.19 (2H, m, OCH ₂ CH ₂ CH ₂), 2.24 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 2.56 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 2.94 (2H, m, SO ₂ NHCH ₂ CH ₃), 3.44 (2H, q, <i>J</i> 7.3, NCH ₂ CH ₃), 3.53 (2H, q, <i>J</i> 6.9, NCH ₂ CH ₃), 4.13-4.22 (2H, m, OCH ₂ CH ₃), 4.27 (2H, t, <i>J</i> 6.0, OCH ₂), 4.40 (1H, bs, NH), 6.12 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.81 (1H, d, <i>J</i> 8.8, 6-H), 7.20 (1H, s, 3-H), 7.67 (1H, d, <i>J</i> 8.4, 5-H)	494(M ⁺ , 84.39) 115(100.00)	C ₂₄ H ₃₄ N ₂ O ₇ S 494.2087 (494.2085)
(E)-4r ^{a)}	46.85 ^{b)}	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.05-1.27 (6H, m, NCH ₂ CH ₃ ×2), 2.27 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.35-2.37 (2H, m, OCH ₂ CH ₂ CH ₂), 2.64-2.68 (2H, m, NHCH ₂ CH ₂), 3.15 (2H, m, NHCH ₂ CH ₂), 3.39-3.46 (4H, m, NCH ₂ CH ₃ ×2), 3.78 (3H, s, OCH ₃), 3.78-3.82 (2H, m, OCH ₂ CH ₂ CH ₂), 3.83 (3H, s, OCH ₃), 4.40-4.43 (2H, m, OCH ₂ CH ₂ CH ₂), 6.51-6.57 (2H, m, 2'-, 6'-H), 6.70 (1H, d, 5'-H), 6.85 (1H, d, 6-H), 6.91 (1H, s, CH=CCH ₃), 7.11 (1H, s, 3-H), 7.64 (1H, d, <i>J</i> 8.5, 5-H)	592(M ⁺ , 87.21) 151(100.00)	C ₂₉ H ₃₇ ClN ₂ O ₇ S 592.2010 (592.2012)
(Z)-4r ^{a)}	-	-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.05-1.27 (6H, m, NCH ₂ CH ₃ ×2), 2.21 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 2.29-2.35 (2H, m, OCH ₂ CH ₂ CH ₂), 2.66 (2H, t, <i>J</i> 7.0, NHCH ₂ CH ₂), 3.14 (2H, q, <i>J</i> 6.9, NHCH ₂ CH ₂), 3.37 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.52 (2H, q, <i>J</i> 6.3, NCH ₂ CH ₃), 3.78 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 3.80 (3H, s, OCH ₃), 3.84 (3H, s, OCH ₃), 4.38 (2H, t, <i>J</i> 6.2, OCH ₂), 4.42 (1H, brs, NH), 6.11 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.51-6.57 (2H, m, 2'-, 6'-H), 6.73 (1H, d, <i>J</i> 8.8, 5'-H), 6.80 (1H, d, <i>J</i> 8.8, 6-H), 7.12 (1H, s, 3-H), 7.63 (1H, d, <i>J</i> 8.4, 5-H)	-	-
(E)-4s	23.7	166.2-164.5	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.37-2.43 (2H, m, OCH ₂ CH ₂ CH ₂), 2.58 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.66 (2H, t, <i>J</i> 6.6, NCH ₂ CH ₂), 3.17 (2H, t, <i>J</i> 6.6, NCH ₂ CH ₂), 3.72 (3H, s, OCH ₃), 3.80 (3H, s, OCH ₃), 3.84 (3H, s, OCH ₃), 3.85 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 4.45 (2H, t, <i>J</i> 6.2, OCH ₂ CH ₂ CH ₂), 4.59 (1H, t, <i>J</i> 5.9, SO ₂ NH), 6.46 (1H, d, <i>J</i> 2.2, 2'-H), 6.65 (1H, dd, <i>J</i> 8.0 and 1.8, 6'-H), 6.64 (1H, d, <i>J</i> 8.1, 5'-H), 6.69-6.71 (2H, m, CH=CCH ₃ , 4"-H), 6.88 (1H, d, <i>J</i> 8.4, 6-H), 7.11 (1H, d, <i>J</i> 7.7, 6"-H), 7.21 (1H, s, 3-H), 7.25 (1H, dd, <i>J</i> 8.4, 5"-H), 7.44 (1H, s, 2"-H), 7.69 (1H, d, <i>J</i> 8.4, 5-H), 7.75 (1H, brs, NH)	642(M ⁺ , 15.50), 44(100.00)	C ₃₂ H ₃₅ ClN ₂ O ₈ S C;59.76 (59.56) H;5.49 (5.59) N;4.36 (4.37)
(Z)-4s	25.6	146.1-150.0	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.89-1.95 (2H, m, OCH ₂ CH ₂ CH ₂), 2.13 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.64 (2H, t, <i>J</i> 6.2, NCH ₂ CH ₂), 3.12 (2H, q, <i>J</i> 5.9, NCH ₂ CH ₂), 3.41-3.44 (2H, m, OCH ₂ CH ₂ CH ₂), 3.43 (3H, s, OCH ₃), 3.82 (3H, s, OCH ₃), 3.83 (3H, s, OCH ₃), 3.85 (2H, t, <i>J</i> 5.5, OCH ₂ CH ₂ CH ₂), 4.24 (1H, t, <i>J</i> 5.5, SO ₂ NH), 6.11-6.12 (2H, m, CH=CCH ₃ , 2'-H), 6.55 (1H, dd, <i>J</i> 8.1 and 1.8, 6'-H), 6.67 (1H, d, <i>J</i> 8.4, 5'-H), 6.68-6.71 (1H, m, 4"-H), 6.77 (1H, d, <i>J</i> 8.4, 6-H), 6.78 (1H, s, 3-H), 7.22-7.28 (2H, m, 5"-H, 6"-H), 7.51 (1H, s, 2"-H), 7.63 (1H, d, <i>J</i> 8.4, 5-H), 8.27 (1H, bs, NH)	642(M ⁺ , 19.63), 165(100.00)	C ₃₂ H ₃₅ ClN ₂ O ₈ S C;59.76 (59.52) H;5.49 (5.54) N;4.36 (4.25)
(E)-4t	35.5	oil	δ_{H} (60 MHz; CDCl ₃ ; Me ₄ Si) 1.15-1.40 (9H, m, OCH ₂ CH ₃ , NCH ₂ CH ₃ ×2), 1.86-2.40 (2H, m, OCH ₂ CH ₂ CH ₂), 2.29 (3H, s, CH=CCH ₃), 2.50-2.88 (2H, m, OCH ₂ CH ₂ CH ₂), 3.25-3.80 (4H, m, NCH ₂ CH ₃ ×2), 4.15 (2H, q, <i>J</i> 5.6, OCH ₂ CH ₃), 4.95 (2H, t, <i>J</i> 5.6, OCH ₂ CH ₂ CH ₂), 6.80 (1H, s, 3-H), 6.90 (1H, s, CH=CCH ₃), 7.50 (1H, s, 5-H)	547(M ⁺ , 10.46), 115(100.00)	C ₃₂ H ₃₅ ClN ₂ O ₈ S - - -

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(E)-4u	10.4 98.5	96.2- 98.5	δ_H (500 MHz; CDCl ₃ ; Me ₄ Si) 1.25 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.31 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.23 (2H, m, OCH ₂ CH ₂ CH ₂), 2.56 (3H, d, <i>J</i> 0.9, CH=CCH ₃), 2.62 (2H, t, <i>J</i> 6.9, OCH ₂ CH ₂ CH ₂), 4.14 (2H, d, <i>J</i> 5.1, NHCH ₂), 4.17 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 4.25 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 4.28 (2H, t, <i>J</i> 6.4, OCH ₂ CH ₂ CH ₂), 6.38 (1H, t, <i>J</i> 5.0, NH), 6.71 (1H, d, <i>J</i> 0.9, CH=CCH ₃), 6.85 (1H, d, <i>J</i> 7.8 and 0.9, 4-H or 6-H), 6.91 (1H, s, 3-H), 7.11 (1H, dd, <i>J</i> 7.8, 5-H), 7.17 (1H, dd, <i>J</i> 7.8 and 1.0, 4-H or 6-H)	417(M ⁺ , 39.23) 115(100.00)	C ₂₂ H ₂₇ NO ₇ 417.1788 (466.1784)
(E)-4t'	21.6 123.0	121.0- 123.0	δ_H (60 MHz; CDCl ₃ ; Me ₄ Si) 1.22 (6H, t, <i>J</i> 7.0, NCH ₂ CH ₃ ×2), 2.00-2.30 (2H, m, OCH ₂ CH ₂ CH ₂), 2.29 (3H, s, CH=CCH ₃), 2.70 (2H, t, <i>J</i> 6.0, OCH ₂ CH ₂ CH ₂), 3.22-3.72 (4H, m, NCH ₂ CH ₃ ×2), 4.43 (2H, t, <i>J</i> 6.0, OCH ₂ CH ₂ CH ₂), 6.80 (1H, s, 3-H), 6.90 (1H, s, CH=CCH ₃), 7.00 (1H, brs, COOH), 7.82 (1H, s, 5-H)	517(100.00), 515(M ⁺ , 53.79), (46.32)H; 4.48 (4.35)N; 2.71 (2.70)	C ₂₀ H ₂₃ Br ₂ NO ₅ C; 46.44 (46.32)H; 4.48 (4.35)N; 2.71 (2.70)
(E)-4v	56.0	oil	δ_H (500 MHz; CDCl ₃ ; Me ₄ Si) 1.22 (3H, t, <i>J</i> 7.3, NCH ₂ CH ₃), 1.23 (3H, t, <i>J</i> 7.3, NCH ₂ CH ₃), 1.72 (3H, d, <i>J</i> 6.5, OCH(CH ₃)), 2.31 (3H, d, <i>J</i> 0.9, CH=CCH ₃), 3.45 (2H, q, <i>J</i> 6.9, NCH ₂ CH ₃), 3.50 (2H, q, <i>J</i> 6.9, NCH ₂ CH ₃), 6.48 (1H, q, <i>J</i> 6.4, OCH(CH ₃)), 6.74 (1H, dd, <i>J</i> 8.2 and 1.0, 4-H or 6-H), 6.78 (1H, s, 3-H), 6.91 (1H, d, <i>J</i> 0.9, CH=CCH ₃), 6.99 (1H, dd, <i>J</i> 7.7, 5-H), 7.10 (1H, dd, <i>J</i> 7.8 and 1.4, 4-H or 6-H), 7.23-7.34 (3H, m, phenyl-H), 7.44-7.45 (2H, m, phenyl-H)	377(M ⁺ , 10.29) 273(100.00)	C ₂₄ H ₂₇ NO ₃ 377.1991 (377.1991)
(Z)-4v	10.4	oil	δ_H (500 MHz; CDCl ₃ ; Me ₄ Si) 1.05 (3H, t, <i>J</i> 6.8, NCH ₂ CH ₃), 1.21 (3H, t, <i>J</i> 6.9, NCH ₂ CH ₃), 1.69 (3H, d, <i>J</i> 6.5, OCH(CH ₃)), 2.23 (3H, d, <i>J</i> 1.3, CH=CCH ₃), 4.12 (4H, q, <i>J</i> 6.8, NCH ₂ CH ₃), 5.56 (1H, q, <i>J</i> 6.4, OCH(CH ₃)), 6.02 (1H, d, <i>J</i> 1.3, CH=CCH ₃), 6.65 (1H, dd, <i>J</i> 8.2 and 0.9, 4-H or 6-H), 6.80 (1H, s, 3-H), 6.94 (1H, dd, <i>J</i> 7.8, 5-H), 7.05 (1H, dd, <i>J</i> 7.7 and 0.9, 4-H or 6-H), 7.21-7.32 (3H, m, phenyl-H), 7.41-7.43 (2H, m, phenyl-H)	377(M ⁺ , 11.03) 273(100.00)	C ₂₄ H ₂₇ NO ₃ 377.1991 (377.1987)
(E)-4w	30.0	oil	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.77 (3H, d, <i>J</i> 6.2, OCH(CH ₃)), 2.60 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 3.83 (3H, s, OCH ₃), 5.55 (1H, q, <i>J</i> 6.6, OCH(CH ₃)), 6.63 (1H, s, CH=CCH ₃), 6.67 (1H, ddd, <i>J</i> 8.4 and 2.5 and 0.7, 4'-H), 6.75 (1H, dd, <i>J</i> 8.0 and 1.1, 4-H or 6-H), 6.94 (1H, s, 3-H), 7.00 (1H, dd, <i>J</i> 8.0, 5-H), 7.06 (1H, d, <i>J</i> 8.1, 6'-H), 7.12 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 7.21-7.48 (8H, m, phenyl H, NH, 2'-H, 5'-H)	427(M ⁺ , 16.13) 201(100.00)	C ₂₇ H ₂₅ NO ₄ 427.1784 (427.1787)
(Z)-4w	24.0	oil	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.47 (3H, d, <i>J</i> 6.5, OCH(CH ₃)), 2.60 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 3.75 (3H, s, OCH ₃), 5.46 (1H, q, <i>J</i> 6.6, OCH(CH ₃)), 6.08 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.64 (1H, ddd, <i>J</i> 8.0 and 2.5 and 1.1, 4'-H), 6.66 (1H, d, <i>J</i> 7.3, 4-H or 6-H), 6.96 (1H, dd, <i>J</i> 7.7, 5-H), 7.02 (1H, s, 3-H), 7.08 (1H, dd, <i>J</i> 7.7 and 0.8, 4-H or 6-H), 7.14-7.63 (9H, m, phenyl H, NH, 2'-, 6'-, 5'-H)	427(M ⁺ , 14.40) 201(100.00)	C ₂₇ H ₂₅ NO ₄ 427.1784 (427.1782)
(E)-4x	17.8 125.0	120.0- 125.0	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.76 (3H, d, <i>J</i> 6.5, OCH(CH ₃)), 2.60 (3H, d, <i>J</i> 1.4, CH=CH ₃), 3.80 (3H, s, OCH ₃), 5.55 (1H, q, <i>J</i> 6.4, OCH(CH ₃)), 6.63 (1H, s, CH=CCH ₃), 6.74 (1H, dd, <i>J</i> 8.2 and 9.2, 4-H or 6-H), 6.87-6.90 (2H, m, 3'-, 5'-H), 6.91 (1H, s, 3-H), 7.00 (1H, dd, <i>J</i> 7.8, 5-H), 7.11 (1H, d, <i>J</i> 7.8, 6-H or 4-H), 7.31 (1H, brs, NH), 7.25-7.53 (7H, m, phenyl H, 2'-, 6'-H)	427(M ⁺ , 12.96) 105(100.00)	C ₂₇ H ₂₄ NO ₄ 427.1784 (427.1789)
(E)-4y	39.0	oil	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.73 (3H, d, <i>J</i> 6.6, OCH(CH ₃)), 2.29 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 3.58-3.77 (8H, m, OCH ₂ CH ₂ N ₂), 5.55 (1H, q, <i>J</i> 6.2, OCH(CH ₃)), 6.73 (1H, dd, <i>J</i> 8.1 and 1.1, 4-H or 6-H), 6.81 (1H, s, 3-H), 6.84 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.99 (1H, dd, <i>J</i> 8.1, 5-H), 7.10 (1H, dd, <i>J</i> 8.1 and 1.1, 4-H or 6-H), 7.23-7.35 (3H, m, phenyl-H), 7.42-7.45 (2H, m, phenyl-H)	391(M ⁺ , 6.47) 287(100.00)	C ₂₄ H ₂₅ NO ₄ 391.1784 (391.1785)
(Z)-4y	16.4 129.0	120.0- 129.0	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.70 (3H, d, <i>J</i> 6.6, OCH(CH ₃)), 2.21 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 3.45-3.79 (8H, m, OCH ₂ CH ₂ N ₂), 5.56 (1H, q, <i>J</i> 6.5, OCH(CH ₃)), 5.96 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.70 (1H, dd, <i>J</i> 7.1 and 0.7, 4-H or 6-H), 6.76 (1H, s, 3-H), 6.97 (1H, dd, <i>J</i> 7.7, 5-H), 7.07 (1H, dd, <i>J</i> 7.6 and 0.7, 4-H or 6-H), 7.21-7.34 (3H, m, phenyl-H), 7.43-7.46 (2H, m, phenyl-H)	391(M ⁺ , 12.12) 287(100.00)	C ₂₄ H ₂₅ NO ₄ 391.1784 (391.1780)

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(E)-4z	4.03	109.0-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.73 (3H, d, <i>J</i> 6.2, OCH(CH ₃)), 2.54 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.85 (2H, t, <i>J</i> 7.0, NCH ₂ CH ₂), 3.62 (2H, q, <i>J</i> 6.9, NCH ₂ CH ₃), 3.86 (1H, s, OCH ₃), 3.88 (1H, s, OCH ₃), 5.52 (1H, q, <i>J</i> 6.6, OCH(CH ₃)), 5.69 (1H, t, <i>J</i> 5.9, NHCH ₂ CH ₂), 6.47 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.71 (1H, dd, <i>J</i> 8.0 and 0.7, 4-H or 6-H), 6.77-6.86 (3-H, m, 2'-, 5'-, 6'-H), 6.87 (1H, s, 3-H), 6.98 (1H, dd, <i>J</i> 7.7, 5-H), 7.10 (1H, dd, <i>J</i> 7.7 and 0.8, 4-H or 6-H), 7.21-7.33 (3H, m, phenyl-H), 7.42-7.44 (2H, m, phenyl-H)	485(M ⁺ , 5.81) 164(100.00)	C ₃₀ H ₃₁ NO ₅ 485.2202 (485.2199)
(Z)-4z	34.6	oil	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.68 (3H, d, <i>J</i> 6.6, OCH(CH ₃)), 2.20 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.78 (2H, t, <i>J</i> 7.0, NCH ₂ CH ₂), 3.62 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.69 (1H, s, OCH ₃), 3.80 (1H, s, OCH ₃), 5.56 (1H, q, <i>J</i> 6.2, OCH(CH ₃)), 5.83 (1H, t, <i>J</i> 5.5, NHCH ₂ CH ₂), 5.95 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.60-6.69 (3-H, m, 2'-, 5'-, 6'-H), 6.71 (1H, dd, <i>J</i> 8.1 and 1.1, 4-H or 6-H), 6.94 (1H, s, 3-H), 6.98 (1H, dd, <i>J</i> 7.7, 5-H), 7.09 (1H, dd, <i>J</i> 8.1 and 0.7, 4-H or 6-H), 7.20-7.32 (3H, m, phenyl-H), 7.42-7.44 (2H, m, phenyl-H)	485(M ⁺ , 2.15) 164(100.00)	C ₃₀ H ₃₁ NO ₅ 485.2202 (485.2199)
(E)-4a	18.8	128.2-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.31 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.61-3.72 (8H, m, NCH ₂ CH ₂ O ₂), 4.01 (3H, s, OCH ₃), 6.82-6.84 (1H, m, 4-H or 6-H), 6.84 (1H, s, 3-H), 6.86 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 7.12-7.16 (2H, m, 5-H, 4-H or 6-H)	301(M ⁺ , 44.75) 215(100.00)	C ₁₇ H ₁₉ NO ₄ 301.1314 (301.1304)
(Z)-4a	10.0	162.3- 164.3	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.20 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 3.45-3.48, 3.52-3.55, 3.78-3.82 (8H, m, NCH ₂ CH ₂ O ₂), 3.95 (3H, s, OCH ₃), 5.93 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.77 (1H, s, 3-H), 6.78-6.81 (1H, m, 4-H or 6-H), 7.12-7.16 (2H, m, 5-H, 4-H or 6-H)	301(M ⁺ , 32.09) 215(100.00)	C ₁₇ H ₁₉ NO ₄ 301.1314 (301.1314)

Table S3 Isomeric ratio of 2-(2-alkylcarbamolyl-1-methylvinyl)benzo[*b*]furans (**4**) and 2-(2-ethoxycarbo-1-methylvinyl)benzo[*b*]furans (**5**)

Compd	Base			
	NaH		LiCl / DBU	
	E / Z ratio ^{a)}	Yield (%)	E / Z ratio ^{a)}	Yield (%)
4a	74 : 26	71.5		
4b	77 : 23	81.6		
4c	72 : 28	96.9	77 : 23	49.8
4d	81 : 19	87.2		
4e	78 : 22	87.2	82 : 18	74.5
4f	68 : 32	37.6		
4g	72 : 28	76.5		
4h	62 : 38	79.1	64 : 36	50.9
4i	76 : 24	70.0	83 : 17	46.5
4j	71 : 29	80.7	82 : 18	42.0
4k	80 : 20	75.3	84 : 16	89.7
4l	61 : 39	64.5	73 : 27	41.5
4m	54 : 46	82.6	67 : 33	18.6
4n	72 : 28	90.0		
4o	81 : 19	57.0		
4p	69 : 31	25.6		
4q	22 : 78	53.0		
4r	11 : 89	47.0		
4s	34 : 66	52.0		
4t	72 : 25	35.5		
4u	75 : 25 ^{b)}	10.8		
4v	64 : 36	64.4		
4w	80 : 20	54.0		
4x	64 : 36	17.8		
4y	70 : 30	55.4		
4z	60 : 40	90.9		
4a	57 : 43	77.5		
5a	E □ 100	68.5		
5b	64:36	52.0		
5c	64:36	65.9		
5d	62:38	75.1	E □ 100	81.7
5e	E □ 100	52.0		
5f	71:29	84.0	E □ 100	53.6
5g	51:49	49.4		
5h	70:30	51.9		

a) The ratio was determined using the signal intensity of the olefinic methyl group (*E* □ 2.3 ppm, *Z* □ 2.2 ppm) or olefinic proton (*E* □ 6.9 ppm, *Z* □ 6.0 ppm) in ¹H-NMR. b) The ratio was determined by HPLC.

Table S4 Physical data and yields of 2-(2-ethoxycarbo-1-methylvinyl)benzo[*b*]furans (**5**)

Compd	Yield (%)	m.p. (°C)	¹ H-NMR	MS <i>m/z</i> (int.)	formula HR-MS <i>m/z</i> <i>M</i> ⁺ Calcd (Found) or Analysis Calcd(Found)
(E)-5a	68.3	65.0-	δ_H (500 MHz; CDCl ₃ ; Me ₄ Si) 1.32 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.53 (3H, d, <i>J</i> 1.3, CH=CCH ₃), 4.02 (3H, s, OCH ₃), 4.23 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 6.70 (1H, d, <i>J</i> 0.9, CH=CCH ₃), 6.84 (1H, d, <i>J</i> 7.7 and 1.3, 4-H or 6-H), 6.97 (1H, s, 3-H), 7.14 (1H, dd, <i>J</i> 7.7, 5-H), 7.17 (1H, dd, <i>J</i> 7.7 and 1.7, 4-H or 6-H)	274(M ⁺ , 2.46) 260(100.00)	C ₁₅ H ₁₆ O ₄ 260.1062 (260.1055)
(E)-5b a) b)	52.0	oil	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.26 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.33 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.18-2.24 (2H, m, OCH ₂ CH ₂ CH ₂), 2.54 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.59 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 4.13-4.27 (4H, m, CH ₂ CH ₃ ×2 and OCH ₂ CH ₂ CH ₂), 6.67 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.84 (1H, dd, <i>J</i> 7.7 and 1.5, 4-H or 6-H), 6.96 (1H, s, 3-H), 7.10 (1H, dd, <i>J</i> 7.7, 5-H), 7.15 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H)	360(M ⁺ , 29.69) 115(100.00)	C ₂₀ H ₂₄ O ₆ 360.1573 (360.1568)
(Z)-5b a)	-	-	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.25 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.28 (3H, t, <i>J</i> 6.9, CH ₂ CH ₃), 2.15-2.21 (2H, m, OCH ₂ CH ₂ CH ₂), 2.54 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.57 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 4.13-4.27 (4H, m, CH ₂ CH ₃ ×2 and OCH ₂ CH ₂ CH ₂), 5.93 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.80 (1H, dd, <i>J</i> 8.1 and 1.1, 4-H or 6-H), 7.11 (1H, dd, <i>J</i> 7.7, 5-H), 7.18 (1H, dd, <i>J</i> 8.1 and 1.1, 4-H or 6-H), 7.37 (1H, s, 3-H)	-	-
(E)-5c a)	65.9	oil	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.34 (3H, t, <i>J</i> 7.1, CH ₂ CH ₃), 1.43 (6H, d, <i>J</i> 6.2, OCH(CH ₃) ₂), 2.54 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 4.26 (1H, m, OCH(CH ₃) ₂), 6.67 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.86 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 6.96 (1H, s, 3-H), 7.10 (1H, dd, <i>J</i> 7.7, 5-H), 7.15 (1H, dd, <i>J</i> 7.7 and 1.5, 4-H or 6-H)	288(M ⁺ , 55.14) 200(100.00)	C ₁₇ H ₂₀ O ₄ 288.1362 (288.1362)
(Z)-5c a)	-	-	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.28 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.39 (6H, d, <i>J</i> 6.2, OCH(CH ₃) ₂), 2.28 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 4.80 (1H, m, OCH(CH ₃) ₂), 5.93 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.83 (1H, dd, <i>J</i> 7.7 and 1.1, 4-H or 6-H), 7.09 (1H, dd, <i>J</i> 7.7, 5-H), 7.18 (1H, dd, <i>J</i> 6.6 and 1.1, 4-H or 6-H), 7.33 (1H, s, 3-H)	-	-
(E)-5d	70.3	140.1-	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.35 (3H, t, <i>J</i> 6.9, CH ₂ CH ₃), 2.53 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 4.25 (2H, q, <i>J</i> 7.0, CH ₂ CH ₃), 6.48 (1H, s, OCH), 6.64 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.84 (1H, dd, <i>J</i> 7.7 and 0.7, 4-H or 6-H), 6.95 (1H, s, 3-H), 6.84 (1H, dd, <i>J</i> 7.7, 5-H), 7.13 (1H, dd, <i>J</i> 7.6 and 0.7, 4-H or 6-H), 7.24-7.37 (6H, m, phenyl-H), 7.49-7.50 (4H, m, phenyl-H)	412(M ⁺ , 8.05) 167(100.00)	C ₂₇ H ₂₄ O ₄ 412.1675 (412.1676)
(Z)-5d a)	-	-	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.23-1.37 (6H, m, CH ₂ CH ₃ ×2), 2.28 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 4.08-4026 (4H, m, CH ₂ CH ₃ ×2), 5.93 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.50 (1H, s, OCH), 6.78 (1H, dd, <i>J</i> 7.8 and 0.7, 4-H or 6-H), 6.98 (1H, dd, <i>J</i> 8.0, 5-H), 7.13 (1H, d, <i>J</i> 8.0, 4-H or 6-H), 7.24-7.37 (7H, m, 3-H and phenyl-H), 7.49-7.50 (4H, m, phenyl-H)	-	-
(E)-5e	52.1	85.6-	δ_H (400 MHz; CDCl ₃ ; Me ₄ Si) 1.26 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.34 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.20 (2H, m, OCH ₂ CH ₂ CH ₂), 2.55 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.58 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 4.17 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 4.23 (2H, t, <i>J</i> 6.3, OCH ₂ CH ₂ CH ₂), 4.26 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 6.68 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.73 (1H, d, <i>J</i> 8.4, 6-H), 6.97 (1H, s, 3-H), 7.25 (1H, d, <i>J</i> 8.4, 5-H)	440(M ⁺ , 14.11) 115(100.00)	C ₂₀ H ₂₃ BrO ₆ 438.0678 (438.0678)

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(E)-5f	84.0	134.7-	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 1.35 (3H, t, <i>J</i> 6.9, CH ₂ CH ₃), 2.54 (3H, d, <i>J</i> 0.9, CH=CCH ₃), 4.26 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 6.43 (1H, s, OCH), 6.70 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.84 (1H, d, <i>J</i> 8.3, 6-H), 6.96 (1H, s, 3-H), 7.14 (1H, d, <i>J</i> 8.7, 5-H), 7.27-7.37 (6H, m, phenyl-H), 7.46-7.48 (4H, m, phenyl-H)	490(M ⁺ , 1.33) 167(100.00)	C ₂₇ H ₂₃ BrO ₄ 490.0780 (490.0780)
(Z)-5f a)	-	-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.35 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.27 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 4.09 (2H, q, <i>J</i> 7.0, CH ₂ CH ₃), 5.98 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.45 (1H, s, OCH), 6.66 (1H, d, <i>J</i> 8.8, 6-H), 7.12 (1H, d, <i>J</i> 8.4, 5-H), 7.20 (1H, s, 3-H), 7.26-7.48 (10H, m, phenyl-H)	-	-
(E)-5g	49.4	103.0-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.08 (3H, t, <i>J</i> 7.3, NCH ₂ CH ₃), 1.30 (3H, t, <i>J</i> 7.3, OCH ₂ CH ₃), 1.33 (3H, t, <i>J</i> 7.3, OCH ₂ CH ₃), 2.56 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.00 (2H, m, NCH ₂ CH ₃), 4.22 (2H, q, <i>J</i> 7.0, OCH ₂ CH ₃), 4.35 (2H, q, <i>J</i> 7.0, OCH ₂ CH ₃), 4.94 (2H, s, OCH ₂), 6.69 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.83 (1H, d, <i>J</i> 7.4, 6-H), 7.39 (1H, s, 3-H), 7.71 (1H, d, <i>J</i> 8.4, 5-H)	439(M ⁺ , 100.00)	C ₂₀ H ₂₅ NO ₈ S 439.1301 (439.1299)
(E)-5h	52.1	85.6-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.26 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 1.35 (3H, t, <i>J</i> 7.3, CH ₂ CH ₃), 2.20 (2H, m, OCH ₂ CH ₂ CH ₂), 2.55 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 2.58 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 4.16 (2H, q, <i>J</i> 7.4, CH ₂ CH ₃), 4.25 (2H, q, <i>J</i> 7.0, CH ₂ CH ₃), 4.47 (2H, t, <i>J</i> 5.9, OCH ₂ CH ₂ CH ₂), 6.57 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.90 (1H, s, 3-H), 7.54 (1H, s, 5-H)	516(M ⁺ , 4.21) 115(100.00)	C ₂₀ H ₂₂ Br ₂ O ₆ 515.9783 (515.9769)
(Z)-5h a)	-	-	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 1.25 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 1.35 (3H, t, <i>J</i> 7.0, CH ₂ CH ₃), 2.14 (2H, m, OCH ₂ CH ₂ CH ₂), 2.28 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 2.64 (2H, t, <i>J</i> 7.3, OCH ₂ CH ₂ CH ₂), 4.13-4.28 (4H, m, CH ₂ CH ₃ ×2), 4.42 (2H, t, <i>J</i> 4.4, OCH ₂ CH ₂ CH ₂), 6.01 (1H, q, <i>J</i> 1.5, CH=CCH ₃), 7.32 (1H, s, 3-H or 5-H), 7.53 (1H, s, 3-H or 5-H)	-	-

a) Assigned using ¹H-NMR of mixture of (*E*)- and (*Z*)-isomers. b) Mixture of (*E*)- and (*Z*)-isomers.

Table S5 Physical data and yields of 2-acetyl- (**7**) and 2-carboxyvinyl-4-(2-alkylcarbamoyl-1-methylvinyl)-7-alkyloxybenzo[*b*]furans (**8**)

Compd	Yield (%)	m.p. (°C)	¹ H-NMR	MS m/z (int.)	formula HR-MS m/z M ⁺ Calcd (Found) or Analysis Calcd(Found)
7a	97.0	oil	δ_{H} (500MHz; CDCl ₃ ; Me ₄ Si) 1.17-1.24 (6H, m, NCH ₂ CH ₃ ×2), 1.27 (3H, t, J 7.3, OCH ₂ CH ₃), 2.23 (2H, m, OCH ₂ CH ₂ CH ₂), 2.39 (3H, d, J 0.9, CH=CCH ₃), 2.59 (2H, t, J 6.84, OCH ₂ CH ₂ CH ₂), 2.63 (3H, s, COCH ₃), 3.41 (2H, q, J 6.8, NCH ₂ CH ₃), 3.50 (2H, q, J 6.8, NCH ₂ CH ₃), 4.17 (2H, q, J 7.4, OCH ₂ CH ₃), 4.28 (2H, t, J 6.0, OCH ₂ CH ₂ CH ₂), 6.25 (1H, d, J 1.4, CH=CCH ₃), 6.84 (1H, d, J 8.3, 6-H), 7.19 (1H, d, J 8.3, 5-H), 7.64 (1H, s, 3-H)	429(M ⁺ , 16.66), 105(100.00)	C ₂₆ H ₂₉ NO ₄ 419.2152 (429.2154)
7b	18.3	161.3- 166.0	δ_{H} (60MHz; CDCl ₃ ; Me ₄ Si) 1.12 (6H, t, J 7.0, NCH ₂ CH ₃ ×2), 2.10-2.72 (m, 4H, OCH ₂ CH ₂ CH ₂), 2.38 (3H, s, CH=CCH ₃), 2.62 (3H, s, COCH ₃), 3.30-3.64 (4H, m, NCH ₂ CH ₃ ×2), 4.28 (2H, t, J 6.0, OCH ₂ CH ₂ CH ₂), 6.30 (1H, s, CH=CCH ₃), 6.95 (1H, d, J 9.0, 6-H), 7.25 (1H, d, J 8.0, 5-H), 7.45 (1H, s, 3-H), 7.55 (1H, bs, COOH)	401(M ⁺ , 74.88), 243(100.00)	C ₂₂ H ₂₇ NO ₆ 401.1838 (401.1839)
7c	48.7	163.3- 165.2	δ_{H} (500MHz; CDCl ₃ ; Me ₄ Si) 1.16 (3H, t, J 6.9, NCH ₂ CH ₃), 1.20 (3H, t, J 6.9, NCH ₂ CH ₃), 1.76 (3H, OCH(CH ₃), J 6.4), 2.34 (3H, d, J 1.0, CH=CCH ₃), 2.64 (3H, s, COCH ₃), 3.37 (2H, q, J 6.9, NCH ₂ CH ₃), 3.47 (2H, q, J 6.8, NCH ₂ CH ₃), 5.57 (1H, q, J 6.5, OCH(CH ₃)), 6.20 (1H, d, J 1.4, CH=CCH ₃), 6.80 (1H, d, J 8.2, 6-H), 7.40 (1H, d, J 8.2, 5-H), 7.25-7.28 (1H, m, phenyl H), 7.33-7.36 (2H, m, phenyl H), 7.43-7.45 (2H, m, phenyl-H), 7.62 (1H, s, 3-H)	419(M ⁺ , 5.05), 315(100.00)	C ₂₆ H ₂₉ NO ₄ 419.2097 (419.2099)
7d	26.4	155.2- 156.9	δ_{H} (400MHz; CDCl ₃ ; Me ₄ Si) 1.75 (3H, J 6.3, OCH(CH ₃)), 2.55 (3H, d, J 1.1, CH=CCH ₃), 2.65 (3H, s, COCH ₃), 2.82 (2H, t, J 6.9, NCH ₂ CH ₂), 3.59 (2H, q, J 7.0, NCH ₂ CH ₂), 3.85 (3H, s, OCH ₃), 3.86 (3H, s, OCH ₃), 5.52 (1H, t, J 5.8, NH), 5.56 (1H, q, J 6.6, OCH(CH ₃)), 5.83 (1H, d, J 1.1, CH=CCH ₃), 6.74-6.82 (3H, m, 2'-, 5'-, 6'-H), 6.78 (1H, d, J 8.4, 6-H), 7.02 (1H, d, J 8.0, 5-H), 7.24-7.44 (5H, m, phenyl-H), 7.55 (1H, s, 3-H)	527(M ⁺ , 7.28), 164(100.00)	C ₃₂ H ₃₃ NO ₆ 527.2321 (527.2314)
7e	17.0	196.0- 202.1	δ_{H} (400MHz; CDCl ₃ ; Me ₄ Si) 1.76 (3H, d, J 6.7, OCH(CH ₃)), 2.31 (3H, d, J 1.0, CH=CCH ₃), 2.64 (3H, s, COCH ₃), 2.66-4.10 (8H, m, NCH ₂ CH ₂ N×2), 3.53 (2H, s, NCH ₂ C ₆ H ₅), 5.56 (1H, q, J 6.7, CH(CH ₃)), 6.10 (1H, d, J 1.0, CH=CCH ₃), 6.78 (1H, d, J 8.2, 6-H), 7.01 (1H, d, J 8.2, 5-H), 7.24-7.67 (8H, m, phenyl-H), 7.57 (1H, s, 3-H), 7.60-7.62 (2H, m, phenyl-H)	522(M ⁺ , 64.61), 91(100.00)	C ₃₃ H ₃₄ N ₂ O ₄ 522.2518 (522.2526)
7f	45.3	86.7- 89.5	δ_{H} (500MHz; CDCl ₃ ; Me ₄ Si) 1.76 (3H, d, J 6.4, OCH(CH ₃)), 2.33 (3H, d, J 1.0, CH=CCH ₃), 2.65 (3H, s, COCH ₃), 3.16-3.87 (8H, m, NCH ₂ CH ₂ N×2), 5.59 (1H, q, J 6.4, OCH(CH ₃)), 6.21 (1H, d, J 1.3, CH=CCH ₃), 6.80 (1H, d, J 8.3, 6-H), 6.89-6.93 (3H, m, phenyl-H), 7.06 (1H, d, J 8.2, 5-H), 7.26-7.34 (5H, m, phenyl-H), 7.44-7.45 (2H, m, phenyl-H), 7.63 (1H, s, 3-H)	508(M ⁺ , 66.68), 105(100.00)	C ₃₂ H ₃₂ N ₂ O ₄ 508.2362 (508.2361)
7g	37.0	173.9- 175.4	δ_{H} (400MHz; CDCl ₃ ; Me ₄ Si) 1.16 (3H, d, J 6.6, OCH(CH ₃)), 2.33 (3H, d, J 1.1, CH=CCH ₃), 2.65 (3H, s, COCH ₃), 3.47-3.74 (8H, m, OCH ₂ CH ₂ N×2), 5.67 (1H, q, J 6.6, OCH(CH ₃)), 6.15 (1H, d, J 1.1, CH=CCH ₃), 6.79 (1H, d, J 8.4, 6-H), 7.04 (1H, d, J 8.0, 5-H), 7.24-7.36 (3H, m, phenyl-H), 7.43-7.45 (2H, m, phenyl-H), 7.61 (1H, s, 3-H)	433(M ⁺ , 5.97), 329(100.00)	C ₂₆ H ₂₇ NO ₅ 433.1889 (433.1885)

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7h	35.3	142.0-	δ_H (60MHz; CDCl ₃ ; Me ₄ Si) 1.16-1.23 (6H, m, NCH ₂ CH ₃ ×2), 2.37 (3H, d, J 1.1, CH=CCH ₃), 2.59 (3H, s, COCH ₃), 3.39 (2H, q, J 7.4, NCH ₂ CH ₃), 3.49 (2H, q, J 7.0, NCH ₂ CH ₃), 5.49 (2H, s, OCH ₂ CO), 6.07 (2H, s, OCH ₂ O), 6.23 (1H, d, J 1.1, CH=CCH ₃), 6.89 (1H, d, J 8.4, 6-H), 6.90 (1H, J 8.4, 5'-H), 7.15 (1H, d, J 8.0, 5-H), 7.51 (1H, d, J 1.4, 2'-H), 7.63 (1H, s, 3-H), 7.68 (1H, dd, J 8.0 and 1.4, 6'-H)	477(M ⁺ ,60.13), 314(100.00)	C ₂₇ H ₂₇ NO ₇ 477.1788 (477.1803)
7i	31.7	163.3-	δ_H (500MHz; CDCl ₃ ; Me ₄ Si) 1.15-1.12 (6H, m, NCH ₂ CH ₃ ×2), 2.34 (3H, d, J 1.4, CH=CCH ₃), 2.62 (3H, s, COCH ₃), 3.37 (2H, q, J 7.3, NCH ₂ CH ₃), 3.48 (2H, q, J 7.3, NCH ₂ CH ₃), 6.21 (1H, d, J 1.3, CH=CCH ₃), 6.49 (1H, s, OCH), 6.92 (1H, d, J 8.7, 6-H), 7.07 (1H, d, J 8.2, 5-H), 7.25-7.37 (6H, m, phenyl-H), 7.45-7.51 (4H, m, phenyl-H), 7.63 (1H, s, 3-H)	481(M ⁺ ,2.59), 167(100.00)	C ₃₁ H ₃₁ NO ₄ 481.2253 (481.2251)
7j	15.8	200.4-	δ_H (400MHz; CDCl ₃ ; Me ₄ Si) 2.56 (3H, d, J 1.1, CH=CCH ₃), 2.63 (3H, s, COCH ₃), 3.52-3.72 (8H, m, OCH ₂ CH ₂ N×2), 6.16 (1H, d, J 1.1, CH=CCH ₃), 6.50 (1H, s, OCH), 6.91 (1H, d, J 8.4, 6-H), 7.07 (1H, d, J 8.4, 5-H), 7.26-7.38 (6H, m, phenyl-H), 7.49-7.51 (4H, m, phenyl-H), 7.61 (1H, s, 3-H)	495(M ⁺ ,0.60), 167(100.00)	C ₃₁ H ₂₉ NO ₅ 495.2046 (495.2042)
7k	20.7	208.3-	δ_H (400MHz; CDCl ₃ ; Me ₄ Si) 2.56 (3H, d, J 1.1, CH=CCH ₃), 2.63 (3H, s, COCH ₃), 2.82 (2H, t, J 6.9, NCH ₂ CH ₂), 3.59 (2H, q, J 7.0, NCH ₂ CH ₂), 3.84 (3H, s, OCH ₃), 3.86 (3H, s, OCH ₃), 5.52 (1H, t, J 5.5, NH), 5.83 (1H, d, J 1.1, CH=CCH ₃), 6.49 (1H, s, OCH), 6.70-6.76 (2H, m, 2'-, 6'-H), 6.80-6.83 (1H, m, 5'-H), 6.90 (1H, d, J 8.1, 6-H), 7.04 (1H, d, J 8.1, 5-H), 7.25-7.38 (6H, m, phenyl-H), 7.48-7.51 (4H, m, phenyl-H), 7.56 (1H, s, 3-H)	589(M ⁺ ,5.14), 167(100.00)	C ₃₇ H ₃₅ NO ₆ 589.2464 (589.2458)
7l	44.5	132.1-	δ_H (400MHz; CDCl ₃ ; Me ₄ Si) 2.31 (3H, s, CH=CCH ₃), 2.63 (3H, s, COCH ₃), 2.65-4.07 (8H, m, NCH ₂ CH ₂ N×2), 3.54 (2H, s, NCH ₂ C ₆ H ₅), 6.11 (1H, d, J 1.0, CH=CCH ₃), 6.49 (1H, s, OCH), 6.90 (1H, d, J 8.2, 6-H), 7.04 (1H, d, J 8.2, 5-H), 7.29-7.50 (15H, m, phenyl-H), 7.57 (1H, s, 3-H)	584(M ⁺ ,10.44), 167(100.00)	C ₃₈ H ₃₆ N ₂ O ₄ 584.2675 (584.2687)
7m	36.8	169.1-	δ_H (400MHz; CDCl ₃ ; Me ₄ Si) 2.34 (3H, d, J 1.1, CH=CCH ₃), 2.63 (3H, s, COCH ₃), 3.16-3.87 (8H, m, NCH ₂ CH ₂ N×2), 6.22 (1H, d, J 1.1, CH=CCH ₃), 6.51 (1H, s, OCH), 6.88-6.91 (3H, m, phenyl-H), 6.92 (1H, d, J 8.5, 6-H), 7.09 (1H, d, J 8.0, 5-H), 7.25-7.31 (4H, m, phenyl-H), 7.34-7.38 (4H, m, phenyl-H), 7.50-7.51 (4H, m, phenyl-H), 7.64 (1H, s, 3-H)	570(M ⁺ ,3.55), 167(100.00)	C ₃₇ H ₃₄ N ₂ O ₄ 570.2518 (570.2519)
7n	14.3	80.6-	δ_H (500MHz; CDCl ₃ ; Me ₄ Si) 1.19 (3H, t, J 7.1, NCH ₂ CH ₃), 1.22 (3H, t, J 7.3, NCH ₂ CH ₃), 2.33-2.38 (2H, m, OCH ₂ CH ₂ CH ₂), 2.38 (3H, d, J 0.9, CH=CCH ₃), 2.62 (3H, s, COCH ₃), 3.40 (2H, q, J 7.4, NCH ₂ CH ₃), 3.49 (2H, q, J 7.1, NCH ₂ CH ₃), 3.83 (2H, t, J 6.4, OCH ₂ CH ₂ CH ₂), 4.38 (2H, t, J 5.7, OCH ₂ CH ₂ CH ₂), 6.25 (1H, d, J 1.4, CH=CCH ₃), 6.97 (1H, d, J 8.3, 6-H), 7.20 (1H, d, J 8.3, 5-H), 7.64 (1H, s, 3-H)	391(M ⁺ ,67.21), 319(100.00)	C ₂₁ H ₂₆ ClNO ₄ C:64.36 (64.0) H:6.69 (6.69) N:3.57 (3.53)
7o	38.7	110.5-	δ_H (500MHz; CDCl ₃ ; Me ₄ Si) 1.19 (3H, t, J 7.1, NCH ₂ CH ₃), 1.22 (3H, t, J 7.3, NCH ₂ CH ₃), 2.17-2.23 (2H, m, OCH ₂ CH ₂ CH ₂), 2.39 (3H, d, J 1.4, CH=CCH ₃), 2.62 (3H, s, COCH ₃), 3.18 (2H, t, J 7.4, OCH ₂ CH ₂ CH ₂), 3.41 (2H, q, J 7.3, NCH ₂ CH ₃), 3.50 (2H, q, J 7.3, NCH ₂ CH ₃), 4.32 (2H, t, J 6.0, OCH ₂ CH ₂ CH ₂), 6.25 (1H, d, J 1.4, CH=CCH ₃), 6.97 (1H, d, J 8.3, 6-H), 7.20 (1H, d, J 8.3, 5-H), 7.64 (1H, s, 3-H)	499(M ⁺ ,22.81), 185(100.00)	C ₂₇ H ₃₀ ClNO ₄ S 499.1584 (499.1588)

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8a	53.5	oil	δ_{H} (400MHz; CDCl ₃ ; Me ₄ Si) 1.19-1.36 (12H, m, CH ₂ CH ₃ ×4), 2.17-2.24 (2H, m, OCH ₂ CH ₂ CH ₂), 2.39 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.53 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.59 (2H, t, <i>J</i> 7.4, OCH ₂ CH ₂ CH ₂), 3.40 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 3.49 (2H, q, <i>J</i> 7.0, NCH ₂ CH ₃), 4.16 (2H, q, <i>J</i> 7.0, OCH ₂ CH ₃), 4.22-4.26 (4H, m, OCH ₂ CH ₃ , OCH ₂ CH ₂ CH ₂), 6.24 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.68 (1H, d, <i>J</i> 1.5, CH=CCH ₃), 6.83 (1H, d, <i>J</i> 8.0, 6-H), 7.11 (1H, d, <i>J</i> 8.0, 5-H), 7.13 (1H, s, 3-H)	499(M ⁺ ,30.24), 115(100.00)	C ₂₈ H ₃₇ NO ₇ 499.2570 (499.2570)
8b	46.4 201.9	199.5- 201.9	δ_{H} (400MHz; DMSO- <i>d</i> ₆ ; Me ₄ Si) 1.09-1.14 (6H, m, NCH ₂ CH ₃ ×2), 2.00-2.07 (2H, m, OCH ₂ CH ₂ CH ₂), 2.28 (3H, d, <i>J</i> 1.0, CH=CCH ₃), 2.44 (2H, t, <i>J</i> 7.2, OCH ₂ CH ₂ CH ₂), 2.51 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 3.37-3.40 (4H, m, NCH ₂ CH ₃ ×2), 4.24 (2H, t, <i>J</i> 6.7, OCH ₂ CH ₂ CH ₂), 6.35 (1H, d, <i>J</i> 1.0, CH=CCH ₃), 6.50 (1H, d, <i>J</i> 1.0, CH=CCH ₃), 7.02 (1H, d, <i>J</i> 8.2, 6-H), 7.22 (1H, d, <i>J</i> 8.2, 5-H), 7.43 (1H, s, 3-H)	443(M ⁺ ,65.09), 241(100.00)	C ₂₄ H ₂₉ NO ₇ 443.1944 (443.1941)

Table S6 Physical data and yields of 5-(2-alkylcarbamoyl-1-methylvinyl)benzo[*b*]furans (**12**)

Compd	Yield (%)	m.p. (°C)	¹ H-NMR	MS m/z (int.)	formula MS m/z M ⁺ Calcd (Found) or Analysis Calcd(Found)
12a	17.5	123.0-125.0	δ_{H} (400MHz; CDCl ₃ ; Me ₄ Si) 1.17-1.22 (6H, m, CH ₂ CH ₃ ×2), 2.35 (3H, d, <i>J</i> 1.5, CH=CCH ₃), 2.55 (3H, s, COCH ₃), 3.40 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 3.48 (2H, q, <i>J</i> 7.3, CH ₂ CH ₃), 3.77 (2H, s, NHCOCH ₂), 3.82 (3H, s, OCH ₃), 6.33 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.93-6.96 (2H, m, 2'-, 6'-H), 7.31-7.34 (2H, m, 3'-, 5'-H), 7.40 (1H, d, <i>J</i> 8.8, 7-H), 7.60 (1H, dd, <i>J</i> 8.8 and 2.2, 6-H), 8.67 (1H, d, <i>J</i> 1.8, 4-H), 10.2 (1H, bs, NH)	462(M ⁺ , 58.29), 121(100.00)	C ₂₇ H ₃₀ O ₅ N 462.2155 (462.2146)
12b	29.7	132.7-134.2	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.34 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.54(3H, s, COCH ₃), 3.56-3.74 (8H, m, OCH ₂ CH ₂ N×2), 3.77 (2H, s, NHCOCH ₂), 3.82 (3H, s, OCH ₃), 6.27 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.93-6.97 (2H, m, 2'-, 6'-H), 7.30-7.34 (2H, m, 3'-, 5'-H), 7.41 (1H, d, <i>J</i> 8.8, 7-H), 7.61 (1H, dd, <i>J</i> 8.8 and 2.2, 6-H), 8.67 (1H, d, <i>J</i> 1.4, 4-H), 10.17(1H, bs, NH)	476(M ⁺ , 58.74), 121(100.00)	C ₂₇ H ₂₈ O ₆ N ₂ 476.1947 (476.1946)
12c	78.6	138.9-141.8	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.35 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.61(3H, s, COCH ₃), 3.58-3.76 (8H, m, NCH ₂ CH ₂ O×2), 6.26 (1H, d, <i>J</i> 1.1, CH=CH ₃), 7.49 (1H, d, <i>J</i> 0.7, 3-H), 7.55 (1H, d, <i>J</i> 8.7, 7-H), 7.59 (1H, d, <i>J</i> 8.8 and 1.8, 6-H), 7.76 (1H, m, 4-H)	313(M ⁺ , 46.72), 227(100.00)	C ₁₈ H ₁₉ NO ₄ C:68.99 (68.84) H:6.11 (6.16) N:4.47 (4.44)
12d	37.4	112.7-114.3	δ_{H} (400 MHz; CDCl ₃ ; Me ₄ Si) 2.59 (3H, d, <i>J</i> 1.1, CH=CCH ₃), 2.61 (3H, s, COCH ₃), 2.83 (2H, t, <i>J</i> 7.0, CH ₂ CH ₂ NH), 3.61 (2H, m, CH ₂ CH ₂ NH), 3.86 (3H, s, OCH ₃), 3.87 (3H, s, OCH ₃), 5.57 (1H, t, <i>J</i> 5.5, NH), 5.95 (1H, d, <i>J</i> 1.1, CH=CCH ₃), 6.75-6.83 (3H, m, 2'-, 5'-, 6'-H), 7.47 (1H, m, 3-H), 7.52-7.53 (2H, m, 6-,7-H), 7.72 (1H, m, 4-H)	407(M ⁺ , 7.42), 164(100.00)	C ₂₄ H ₂₅ NO ₅ C:70.74 (70.42) H:6.18 (6.28) N:3.44 (3.50)
12f	11.9	202.6-204.4	δ_{H} (500 MHz; DMSO-d ₆ ; Me ₄ Si) 2.25 (3H, d, <i>J</i> 1.4, CC ₂ =CHCON), 2.48 (3H, d, <i>J</i> 1.4, CC ₂ =CHCOOH), 3.53-3.59 (8H, m, NCH ₂ CH ₂ O×2), 6.46 (1H, d, <i>J</i> 1.3, CH=CCH ₃), 6.48 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 7.37 (1H, d, 3-H), 7.58-7.61 (2H, m, 5, 6-H), 7.83 (1H, m, 4-H)	355(M ⁺ , 44.83), 269(100.00)	C ₂₀ H ₂₁ NO ₅ 355.1420 (355.1420)
12g	59.0	115.5-117.0	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 2.36 (3H, d, <i>J</i> 1.4, CH=CCH ₃), 3.58-3.74 (8H, m, NCH ₂ CH ₂ O×2), 6.28(1H, d, <i>J</i> 1.4, CH=CH ₃), 7.53-7.57 (3H, m, 3-H and phenyl H), 7.59-7.67 (3H, m, 5-, 6-H and phenyl H), 7.78 (1H, m, 4H), 8.05-8.07 (2H, m, phenyl H)	375(M ⁺ , 62.22), 289(100.00)	C ₂₃ H ₂₁ NO ₄ C:73.58 (73.17) H:5.64 (5.62) N:3.73 (3.73)
12h	41.0	126.9-129.4	δ_{H} (500 MHz; CDCl ₃ ; Me ₄ Si) 2.60 (3H, d, <i>J</i> 0.9, CH=CCH ₃), 2.84 (2H, t, <i>J</i> 6.9, CH ₂ CH ₂ NH), 3.62 (2H, m, CH ₂ CH ₂ NH), 3.86 (3H, s, OCH ₃), 3.87 (3H, s, OCH ₃), 5.57 (1H, t, <i>J</i> 6.0, NH), 5.96 (1H, d, <i>J</i> 1.4, CH=CCH ₃), 6.76-6.83 (3H, m, 2'-, 5'-, 6'-H), 7.51-7.66 (6H, m, 3-, 6-, 7-H and Phenyl H), 7.74 (1H, s, <i>J</i> 1.4, 4-H), 8.04-8.06 (2H, m, Phenyl H)	469(M ⁺ , 4.77), 164(100.00)	C ₂₉ H ₂₇ NO ₅ C:74.18 (73.87) H:5.80 (5.93) N:2.98 (3.10)