

4-Chloro-N-(1-methylethyl)-2-nitroaniline, 11c. The compound was prepared according to the process reported for **11a** from 4-chloro-2-nitroaniline. Yield: 82 %, mp: 71-73 °C. ^1H NMR (CDCl_3): (δ) 8.18 (1H, d); 8.02 (1H, br s); 7.38 (1H, dd); 6.82 (1H, d); 3.80 (1H, m); 1.31 (6H, d). ^{13}C NMR (CDCl_3): (δ) 143.3, 136.2, 131.3, 125.9, 119.4, 115.5, 44.1, 22.5.

4-Fluoro-N-(1-methylethyl)-2-nitroaniline, 11d. The compound was prepared according to the process reported for **11a** from 4-fluoro-2-nitroaniline. Yield: 93 %, mp: 38-43 °C. ^1H NMR (CDCl_3): (δ) 7.85 (2H, m); 7.21 (1H, m); 6.83 (1H, m); 3.80 (1H, m); 1.28 (6H, d). ^{13}C NMR (CDCl_3): (δ) 151.9 (d, $J = 236$ Hz), 141.9, 130.2, 124.9 (d, $J = 25$ Hz), 115.4 (d, $J = 7$ Hz), 111.7 (d, $J = 25$ Hz), 44.1, 22.6.

4-Methoxy-N-(1-methylethyl)-2-nitroaniline, 11e. The compound was prepared according to the process reported for **11a** from 4-methoxy-2-nitroaniline. Yield: 98 %, mp: 76-79 °C. ^1H NMR (CDCl_3): (δ) 7.98 (1H, br s); 7.61 (1H, d); 7.15 (1H, dd); 6.81 (1H, d); 3.80 (4H, m); 1.29 (6H, d). ^{13}C NMR (CDCl_3): (δ) 149.1, 140.8, 130.9, 127.4, 115.5, 106.8, 55.7, 44.0, 22.8.

6-Methyl-N-(1-methylethyl)-2-nitroaniline, 11f. The compound was prepared according to the process reported for **11a** from 4-methoxy-2-nitroaniline. Yield: 52 %, oil. ^1H NMR (CDCl_3): (δ) 7.91 (1H, br d); 7.32 (1H, br d); 6.81 (1H, dd); 6.58 (1H, br d); 3.65 (1H, m); 2.36 (3H, s); 1.18 (6H, d). ^{13}C NMR (CDCl_3): (δ) 144.3, 137.3, 131.7, 125.2, 123.9, 119.2, 48.1, 23.8, 20.2.

2-Cyclopropylaminoaniline, 12b. The compound was prepared according to the process reported for **12a** from **11b**. Yield: 98 %, oil. ^1H NMR (CDCl_3): (δ) 7.12 (1H, d); 6.82 (1H, m); 6.70- 6.62 (2H, m); 2.40 (1H, m); 0.94- 0.61 (4H, m). ^{13}C NMR (CDCl_3): (δ) 138.0, 133.0, 120.6, 118.4, 116.4, 112.4, 24.2, 7.0.

5-Fluoro-2-[(1-methylethyl)amino]aniline, 12d. The compound was prepared according to the process reported for **12a** from **11d**. Yield: 96 %, oil. ^1H NMR (CDCl_3): (δ) 6.65 (1H, m); 6.50 (2H, m); 3.50 (4H, m); 1.20 (6H, d). ^{13}C NMR (CDCl_3): (δ) 157.3 (d, $J = 236$ Hz), 137.8 (d, $J = 10$ Hz), 131.6 (d, $J = 2$ Hz), 115.5 (d, $J = 10$ Hz), 104.9 (d, $J = 22$ Hz), 103.1 (d, $J = 25$ Hz), 45.0, 22.9.

5-Methoxy-2-[(1-methylethyl)amino]aniline, 12e. The compound was prepared according to the process reported for **12c** from **11e**. Yield: 94 %, oil. ^1H NMR (CDCl_3): (δ) 6.62 (1H, d); 6.39 (2H, m); 3.80 (3H, s); 3.75 (2H, br s); 3.48 (1H, m); 2.60 (1H, br s); 1.19 (6H, d).

^{13}C NMR (CDCl_3): (δ) 154.1, 138.6, 129.3, 117.2, 103.6, 102.8, 55.3, 45.5, 23.1.

3-Methyl-2-[(1-methylethyl)amino]aniline, 12f. The compound was prepared according to the process reported for **12c** from **11e**. Yield: 71 %, oil. ^1H NMR (CDCl_3): (δ) 6.81 (1H, d); 6.65 (2H, m); 3.80 (2H, br s); 3.45 (2H, m); 2.28 (3H, s); 1.20 (6H, d). ^{13}C NMR (CDCl_3): (δ) 141.6, 133.0, 131.2, 123.2, 120.6, 113.8, 47.4, 23.8, 18.2.

1-Cyclopropyl-1,3-dihydro-2H-benzimidazol-2-one, 13b. The compound was prepared according to the process reported for **13a** from **12b**. The residue was triturated with acetone. Yield: 65%; mp: 180-183 °C. ^1H NMR (CDCl_3): (δ) 7.22-6.92 (4H, m); 2.85 (1H, m); 1.15 (4H, m). ^{13}C NMR (CDCl_3): (δ) 156.3, 131.2, 127.7, 121.5, 121.1, 109.6, 108.7, 22.2, 6.0.

5-Chloro-1,3-dihydro-1-(1-methylethyl)-2H-benzimidazol-2-one, 13c. The compound was prepared according to the process reported for **13a** from **12c**. Yield: 88 %, mp: 178-181 °C. ^1H NMR (CDCl_3): (δ) 10.71 (1H, br s); 7.11 (1H, s); 6.98 (2H, m); 4.72 (1H, m); 1.47 (6H, d). ^{13}C NMR (CDCl_3): (δ) 155.4, 129.2, 127.5, 126.6, 120.8, 110.1, 109.8, 44.8, 20.2.

1,3-Dihydro-5-fluoro-1-(1-methylethyl)-2H-benzimidazol-2-one, 13d. The compound was prepared according to the process reported for **13a** from **12d**. Yield: 95 %, mp: 154-156 °C. ^1H NMR (CDCl_3): (δ) 11.02 (1H, br s), 7.10 (1H, m); 6.97 (1H, m); 6.77 (1H, m); 4.78 (1H, m); 1.57 (6H, d). ^{13}C NMR (CDCl_3): (δ) 158.4 (d, $J = 235$ Hz), 155.7, 128.9 (d, $J = 12$ Hz), 125.0, 109.3 (d, $J = 9$ Hz), 107.3 (d, $J = 23$ Hz), 97.9 (d, $J = 28$ Hz), 44.7, 20.2.

1,3-Dihydro-5-methoxy-1-(1-methylethyl)-2H-benzimidazol-2-one, 13e. The compound was prepared according to the process reported for **13a** from **12e**. Yield: 91 %, mp: 150-153 °C. ^1H NMR (CDCl_3): (δ) 11.05 (1H, br s), 7.05 (1H, d); 6.80 (1H, d); 6.61 (1H, dd); 4.75 (1H, m); 3.80 (3H, s); 1.53 (6H, d). ^{13}C NMR (CDCl_3): (δ) 155.6, 155.1, 129.3, 122.8, 109.6, 107.1, 96.2, 55.8, 44.4, 20.3.

1,3-Dihydro-7-methyl-1-(1-methylethyl)-2H-benzimidazol-2-one, 13g. The compound was prepared according to the process reported for **13a** from **12f**. Yield: 43 %, mp: 168-171 °C. ^1H NMR (CDCl_3): (δ) 10.60 (1H, br s), 7.10-6.75 (3H, m); 4.93 (1H, m); 2.60 (3H, s); 1.63 (6H, d). ^{13}C NMR (CDCl_3): (δ) 155.9, 128.6, 128.3, 124.7, 120.9, 118.8, 107.7, 47.2, 20.5, 19.8.

1,3-Dihydro-1-butyl-2H-benzimidazol-2-one, 13i. The compound was prepared according to the process reported for **13h**. Yield: 60%, mp: 90-93°C. ^1H NMR (CDCl_3): (δ) 10.35 (1H, br s); 7.12-6.96 (4H, m); 3.90 (2H, t); 1.72 (2H, m); 1.41 (2H, m); 1.02 (3H, t). ^{13}C NMR (CDCl_3): (δ) 155.7, 130.4, 128.0, 121.3, 121.1, 109.6, 107.8, 40.6, 30.5, 20.1, 13.7.

1,3-Dihydro-1-allyl-2H-benzimidazol-2-one, 13j. The compound was prepared according to the process reported for **13h**. Yield: 53 %, mp: 87-90°C. ¹H NMR (CDCl₃): (δ) 10.55 (1H, br s); 7.18-6.98 (4H, m); 5.92 (1H, m); 5.20 (2H, m); 4.53 (2H, d). ¹³C NMR (CDCl₃): (δ) 155.6, 131.8, 130.2, 128.0, 121.6, 121.2, 117.4, 109.7, 108.4, 43.1.

1,3-Dihydro-1-phenylmethyl-2H-benzimidazol-2-one, 13k. The compound was prepared according to the process reported for **13h**. Yield: 65%, mp: 187-189°C. ¹H NMR (DMSO-d₆): (δ) 10.60 (1H, br s); 7.32-7.23 (4H, m); 7.02-6.90 (5H, m); 4.98 (2H, s). ¹³C NMR (DMSO-d₆): (δ) 154.3, 137.2, 130.0, 129.6, 128.6, 128.3, 127.3, 121.0, 120.4, 108.8, 108.1, 43.2.

Ethyl, 4-Butylpiperazin-1-yl carboxylate, 15b. The compound was prepared according to the process reported for **15a**. Yield: 88 %, oil. ¹H NMR (CDCl₃): (δ) 4.13 (2H, q); 3.48 (4H, t); 2.36 (6H, m); 1.47- 1.30 (4H, m); 1.26 (3H, m); 0.91 (3H, t). ¹³C NMR (CDCl₃): (δ) 154.8, 60.6, 57.9, 52.4, 43.1, 28.4, 20.1, 14.1, 13.5.

Ethyl, 4-(4-Fluorophenylmethyl)piperazin-1-yl carboxylate, 15c. The compound was prepared according to the process reported for **15a**. Yield: 97 %, oil. ¹H NMR (CDCl₃): (δ) 7.28-6.95 (4H, m); 4.12 (2H, q); 3.46 (6H, m); 2.37 (4H, t); 1.24 (3H, t). ¹³C NMR (CDCl₃): (δ) 164.8, 157.4 (d, J=205 Hz), 133.4 (d, J=3 Hz), 130.4 (d, J=8 Hz), 115.0 (d, J=20 Hz), 62.1, 61.2, 52.6, 43.6, 14.6.

Ethyl, 4-[3-(4-Fluorophenoxy)propyl]piperazin-1-yl carboxylate, 15d. The compound was prepared according to the process reported for **15a**. Yield: 28 %, oil. ¹H NMR (CDCl₃): (δ) 6.95 (4H, m); 4.21 (2H, q); 4.10 (2H, t); 3.51 (4H, t); 2.53 (2H, t); 2.41 (4H, t); 1.9 (2H, m); 1.20 (3H, t). ¹³C NMR (CDCl₃): (δ) 157.2 (d, J=221 Hz), 154.5 (d, J=12 Hz), 115.6 (d, J=23 Hz), 115.2, 66.6, 61.2, 54.9, 52.9, 43.6, 26.6, 14.6.

1-[3-(4-Fluorophenoxy)propyl]piperazine (hydrobromide), 16d. The compound was prepared according to the process reported for **16b**. Yield: 94 %. mp: 169-171 °C. ¹H NMR (DMSO-d₆): (δ) 9.31 (1H, br s); 7.01 (4H, m); 4.10 (2H, m); 3.91-3.12 (10H, m); 2.20 (2H, m). ¹³C NMR (DMSO-d₆): (δ) 156.4 (d, J=203 Hz), 154.3 (d, J=12 Hz), 116.0 (d, J = 9 Hz), 115.7 (d, J = 6 Hz), 65.3, 53.1, 47.9, 39.9, 23.3.

[4-(1-Methylethyl)piperazin-1-yl]acetonitrile, 17c. The compound was prepared according to the process reported for **17b**. Yield: 88 %. mp: 40-43 °C. ¹H NMR (CDCl₃): (δ) 3.48 (2H, s); 2.62 (9H, m); 1.07 (6H, d). ¹³C NMR (CDCl₃): (δ) 114.6, 53.9, 51.9, 47.8, 45.6, 18.2.

(4-Buthylpiperazin-1-yl)acetonitrile, 17d. The compound was prepared according to the process reported for **17b**. Yield: 84 %, oil. ^1H NMR (CDCl_3): (δ) 3.50 (2H, s); 2.67- 2.30 (10H, m); 1.50- 1.26 (4H, m); 0.91 (3H, t). ^{13}C NMR (CDCl_3): (δ) 114.7, 58.1, 52.7, 51.9, 45.9, 28.9, 20.7, 13.9.

[4-(4-Fluorophenylmethyl)piperazin-1-yl]acetonitrile, 17e. The compound was prepared according to the process reported for **17b**. Yield: 97 %. mp: 75-78 °C. ^1H NMR (CDCl_3): (δ) 7.31- 6.95 (4H, m); 3.50 (2H, s); 3.47 (2H, s); 3.45 (2H, s); 2.64- 2.48 (8H, m). ^{13}C NMR (CDCl_3): (δ) 161.9 (d, $J=243$ Hz), 133.6 (d, $J=3$ Hz), 130.4 (d, $J=8$ Hz), 114.9 (d, $J=21$ Hz), 114.7, 61.8, 52.3, 51.7, 45.8.

[4-(3,4-Methylenedioxyphenylmethyl)piperazin-1-yl]acetonitrile, 17f. The compound was prepared according to the process reported for **17b**. Yield: 99 %, oil. ^1H NMR (CDCl_3): (δ) 6.84 (1H, s); 6.73 (2H, s); 5.94 (2H, s); 3.50 (2H, s); 3.41 (2H, s); 2.64-2.49 (8H, m). ^{13}C NMR (CDCl_3): (δ) 147.6, 146.6, 131.9, 122.0, 114.8, 109.3, 107.8, 100.9, 62.4, 52.3, 51.8, 45.9.

[4-[3-(Fluorophenoxy)propyl]piperazin-1-yl]acetonitrile, 17g. The compound was prepared according to the process reported for **17b**. Yield: 84 %. mp: 56-60 °C. ^1H NMR (CDCl_3): (δ) 7.03- 6.78 (4H, m); 3.98 (2H, t); 3.44 (2H, s); 2.66-2.40 (10H, m); 1.90 (2H, m). ^{13}C NMR (CDCl_3): (δ) 157.2 (d, $J=218$ Hz), 154.6, 115.4 (d, $J=22$ Hz), 115.2, 114.6, 66.5, 54.6, 52.5, 51.7, 45.7, 26.6.

2-(4-Propylpiperazin-1-yl)ethylamine, 18b. The compound was prepared according to the process reported for **18a**. Yield: 71 %, oil. ^1H NMR (CDCl_3): (δ) 2.74 (2H, t); 2.41-2.18 (12H, m); 1.45 (4H, m); 0.82 (3H, t). ^{13}C NMR (CDCl_3): (δ) 61.0, 60.5, 53.1, 38.6, 19.8, 11.7.

2-[4-(1-Methylethyl)piperazin-1-yl]ethylamine, 18c. The compound was prepared according to the process reported for **18a**. Yield: 61 %, oil. ^1H NMR (CDCl_3): (δ) 2.81 (2H, t); 2.65-2.40 (11H, m); 1.48 (2H, br s); 1.05 (6H, d). ^{13}C NMR (CDCl_3): (δ) 61.1, 54.2, 53.4, 48.5, 38.7, 18.5.

2-(4-Butylpiperazin-1-yl)ethylamine, 18d. The compound was prepared according to the process reported for **18a**. Yield: 70 %, oil. ^1H NMR (CDCl_3): (δ) 2.78 (2H, t); 2.48-2.28 (12H, m); 1.55-1.26 (6H, m); 0.91 (3H, t). ^{13}C NMR (CDCl_3): (δ) 61.1, 58.4, 53.2, 53.1, 38.7, 28.9, 20.6, 13.9.

2-[4-(4-Fluorophenylmethyl)piperazin-1-yl]ethylamine, 18e. The compound was prepared according to the process reported for **18a**. Yield: 80 %, oil. ^1H NMR (CDCl_3): (δ) 7.30-

6.93 (4H, m); 3.45 (2H, s); 2.77 (2H, t); 2.44 (10H, m); 1.40 (2H, br s). ^{13}C NMR (CDCl_3): (δ) 161.7 (d, $J=243$ Hz), 133.6 (d, $J=3$ Hz), 130.4 (d, $J=7$ Hz), 114.7 (d, $J=21$ Hz), 62.0, 61.0, 53.0, 52.8, 38.7.

2-[4-(3,4-Methylenedioxyphenylmethyl)piperazin-1-yl]ethylamine, 18f. The compound was prepared according to the process reported for **18a**. Yield: 70 %, oil. ^1H NMR (CDCl_3): (δ) 6.84 (1H, s); 6.73 (2H, s); 5.93 (2H, s); 3.40 (2H, s); 2.75 (2H, t); 2.46- 2.37 (10H, m); 1.39 (2H, br s). ^{13}C NMR (CDCl_3): (δ) 147.5, 146.4, 132.0, 122.1, 109.4, 107.7, 100.7, 62.7, 61.1, 53.2, 52.9, 38.8.

2-[4-[3-(4-Fluorophenoxy)propyl]piperazin-1-yl]ethylamine, 18g. The compound was prepared according to the process reported for **18a**. Yield: 65 %, oil. ^1H NMR (CDCl_3): (δ) 7.00-6.65 (4H, m); 3.98 (2H, t); 2.80 (2H, t); 2.61-2.35 (14H, m); 1.97 (2H, m). ^{13}C NMR (CDCl_3): (δ) 157.2 (d, $J=219$ Hz), 154.8 (d, $J=18$ Hz), 115.6 (d, $J=21$ Hz), 115.3 (d, $J=6$ Hz), 66.8, 61.0, 55.0, 53.2, 53.1, 38.5, 26.7.

N-(2-Chloroethyl)-2,3-dihydro-2-oxo-3-phenylmethyl-1H-benzimidazole-1-carboxamide, 20b. The compound was prepared according to the process reported for **20a**. Yield: 93%, mp: 77-79°C. ^1H NMR (CDCl_3): (δ) 9.16 (1H, br s); 8.18 (1H, m); 7.35-7.27 (5H, m); 7.17 (2H, m); 7.12 (1H, m); 5.07 (2H, s), 3.83-3.70 (4H, m). ^{13}C NMR (CDCl_3): (δ) 151.6, 134.9, 128.8, 128.5, 127.9, 127.2, 126.4, 123.7, 122.8, 115.1, 108.2, 44.7, 43.1, 41.6.

N-(2-Chloroethyl)-2,3-dihydro-3-ethyl-2-oxo-1H-benzimidazole-1-carboxamide, 20c. The compound was prepared according to the process reported for **20a**. Yield: 98 %, mp: 113-115 °C. ^1H NMR (CDCl_3): (δ) 9.20 (1H, br s); 8.21 (1H, m); 7.30-6.91 (3H, m); 3.93 (2H, q); 3.70 (4H, m); 1.32 (3H, t). ^{13}C NMR (CDCl_3): (δ) 152.7, 151.7, 128.3, 126.4, 123.7, 122.6, 115.2, 107.5, 43.2, 41.5, 35.9, 13.1.

N-Chloromethyl-2,3-dihydro-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide, 20e. The compound was prepared according to the process reported for **20d**. Yield: 89 %, mp: 173-175 °C. ^1H NMR (CDCl_3): (δ) 9.80 (1H, br s); 8.31 (1H, m); 7.22 (3H, m); 5.40 (2H, d); 4.72 (1H, m); 1.63 (6H, d). ^{13}C NMR (CDCl_3): (δ) 152.4, 151.1, 127.9, 126.2, 123.9, 122.6, 115.5, 109.0, 51.2, 45.6, 19.8.

N-(2-Chloroethyl)-2,3-dihydro-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide, 20f. The compound was prepared according to the process reported for **20a**. Yield: 97 %, mp: 114-116 °C. ^1H NMR (CDCl_3): (δ) 9.20 (1H, br s); 8.30 (1H, m); 7.20 (3H, m);

4.74 (1H, m); 3.72 (4H, m); 1.61 (6H, d). ^{13}C NMR (CDCl_3): (δ) 152.5, 151.8, 127.6, 126.5, 123.4, 122.2, 115.2, 108.8, 45.3, 43.2, 41.5, 19.7.

6-Chloro-N-(2-chloroethyl)-2,3-dihydro-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide, 20g. The compound was prepared according to the process reported for **20a**. Yield: 93 %, mp: 158-160 °C. ^1H NMR (CDCl_3): (δ) 9.15 (1H, br t); 8.25 (1H, s); 7.18 (1H, d); 7.01 (1H, d); 4.67 (1H, m); 3.71 (4H, m); 1.54 (6H, d). ^{13}C NMR (CDCl_3): (δ) 152.4, 151.4, 127.9, 127.2, 126.3, 123.4, 115.7, 109.5, 45.6, 43.1, 41.6, 19.8.

N-(2-Chloroethyl)-2,3-dihydro-6-fluoro-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide, 20h. The compound was prepared according to the process reported for **20a**. Yield: 71 %, mp: 139-141 °C. ^1H NMR (CDCl_3): (δ) 9.17 (1H, br t); 8.00 (1H, br d); 7.08 (1H, m); 6.90 (1H, m); 4.65 (1H, m); 3.75 (4H, m); 1.53 (6H, d). ^{13}C NMR (CDCl_3): (δ) 158.6 (d, $J = 237$ Hz), 152.7, 151.5, 127.0 (d, $J = 13$ Hz), 123.8, 110.0 (d, $J = 24$ Hz), 109.1 (d, $J = 9$ Hz), 103.7 (d, $J = 30$ Hz), 45.6, 43.1, 41.6, 19.8.

N-(2-Chloroethyl)-2,3-dihydro-6-fluoro-3-(1-methylethyl)-5-nitro-2-oxo-1H-benzimidazole-1-carboxamide, 20i. The compound was prepared according to the process reported for **20a**. Yield: 88 %, mp: 183-186 °C. ^1H NMR (CDCl_3): (δ) 8.71 (1H, br t); 7.92 (1H, d); 7.60 (1H, d); 4.38 (1H, m); 3.45 (4H, m); 1.31 (6H, d). ^{13}C NMR (CDCl_3): (δ) 151.7 (d, $J = 257$ Hz), 151.7, 149.8, 131.9 (d, $J = 8$ Hz), 130.7 (d, $J = 12$ Hz), 123.2 (d, $J = 2$ Hz), 104.8 (d, $J = 2$ Hz), 104.3 (d, $J = 29$ Hz), 45.8, 42.3, 41.0, 19.0.

2,3-Dihydro-3-methyl-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, 2. The compound was prepared according to the process reported for **1**. Yield: 35%, mp: 87-90 °C. ^1H NMR (CDCl_3): (δ) 8.94 (1H, br t); 8.23-8.18 (1H, m); 7.22-7.13 (2H, m); 7.01-6.96 (1H, m); 3.54 (2H, q); 3.42 (3H, s); 2.61 (2H, t); 2.56-2.30 (8H, m); 2.29 (3H, s). ^{13}C NMR (CDCl_3): (δ) 154.2, 152.6, 130.2, 127.5, 124.4, 123.6, 116.1, 108.2, 57.6, 56.0, 53.9, 46.9, 37.8, 27.9.

2,3-Dihydro-3-ethyl-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, (fumarate) 3a. The compound was prepared according to the process reported for **1**. Yield: 45 %, mp: 194-196 °C. ^1H NMR ($\text{DMSO}-d_6$): (δ) 8.94 (1H, br s); 8.17 (1H, d); 7.20 (3H, m); 3.93 (2H, q); 3.56 (2H, q); 2.82 (4H, m); 2.59 (9H, m); 1.21 (3H, t). ^{13}C NMR ($\text{DMSO}-d_6$): (δ) 152.1, 151.0, 128.4, 126.1, 123.5, 122.1, 114.2, 108.5, 55.8, 53.1, 50.5, 43.3, 36.4, 13.0.

2,3-Dihydro-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-3-propyl-1H-benzimidazole-1-carboxamide (fumarate), 4. The compound was prepared according to the process reported for **1**. Yield: 42%, mp: 205-208°C. ¹H NMR (CDCl₃): (δ) 8.93 (1H, br s); 8.22 (1H, m); 7.27-7.11 (2H, m); 7.01 (1H, m); 3.85 (2H, s); 3.56 (2H, m); 2.64-2.40 (10H, m); 2.30 (3H, s); 1.82 (2H, m); 0.99 (3H, t). ¹³C NMR (CDCl₃): (δ) 153.2, 151.8, 128.8, 126.7, 123.4, 122.5, 115.3, 107.6, 56.8, 55.0, 53.0, 46.0, 42.6, 37.0, 21.3, 11.3.

2,3-Dihydro-3-(1-methylethyl)-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, 5a. The compound was prepared according to the process reported for **1**. Yield: 68 %, mp: 124-126 °C. ¹H NMR (CDCl₃): (δ) 8.99 (1H, br s); 8.26 (1H, m); 7.15 (3H, m); 4.73 (1H, m); 3.55 (2H, q); 2.65-2.50 (10H, m); 2.30 (3H, s); 1.54 (6H, d). ¹³C NMR (CDCl₃): (δ) 152.6, 151.9, 127.7, 127.2, 123.2, 122.2, 115.4, 108.8, 56.8, 55.1, 53.0, 45.9, 45.2, 37.0, 19.9.

3-Butyl-2,3-dihydro-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, (fumarate) 7. The compound was prepared according to the process reported for **1**. Yield: 43%, mp: 202-204°C. ¹H NMR (CDCl₃): (δ) 8.93 (1H, br s); 8.22 (1H, m); 7.26-7.14 (2H, m); 6.99 (1H, m); 3.88 (2H, t); 3.56 (2H, m); 2.65-2.50 (10H, m); 2.30 (3H, s); 1.74 (2H, m); 1.43 (2H, m); 0.97 (3H, t). ¹³C NMR (CDCl₃): (δ) 153.2, 151.8, 128.8, 126.7, 123.4, 122.5, 115.3, 107.6, 56.9, 55.1, 53.0, 46.0, 40.8, 37.0, 30.0, 20.0, 13.7.

3-Allyl-2,3-dihydro-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, (fumarate) 8. The compound was prepared according to the process reported for **1**. Yield: 30%, mp: 198-201°C. ¹H NMR (DMSO-d₆): (δ) 8.82 (1H, br s); 8.14 (1H, m); 7.22-7.15 (3H, m); 5.96 (1H, m); 5.23 (2H, m); 4.51 (2H, d); 3.41 (2H, m); 2.86-2.44 (10H, m); 2.42 (3H, s). ¹³C NMR (DMSO-d₆): (δ) 152.3, 151.0, 134.2, 131.8, 128.6, 123.5, 122.3, 117.4, 114.3, 108.9, 55.8, 53.1, 50.4, 43.3, 42.6, 36.4.

2,3-Dihydro-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-3-phenylmethyl-1H-benzimidazole-1-carboxamide, 9. The compound was prepared according to the process reported for **6a**. Yield: 25%, mp: 110-113°C. ¹H NMR (CDCl₃): (δ) 8.95 (1H, br s); 8.22 (1H, m); 7.32-7.02 (7H, m); 6.89 (1H, m); 5.07 (2H, s); 3.57 (2H, q); 2.66-2.50 (10H, m); 2.25 (3H, s). ¹³C NMR (CDCl₃): (δ) 153.4, 151.7, 135.2, 128.9, 128.6, 128.0, 127.4, 127.3, 123.6, 122.8, 115.3, 108.3, 56.8, 55.1, 53.0, 46.0, 44.7, 37.1.

2,3-Dihydro-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-3-(2-phenylethyl)-1H-

benzimidazole-1-carboxamide (hydrochloride) 10. The compound was prepared according to the process reported for **6a**. Yield: 60%, mp: 212°C (dec). ¹H NMR (DMSO-d₆): (δ) 11.81 (1H, br s); 8.75 (1H, m); 8.01 (1H, m); 7.18-7.01 (7H, m); 4.16 (2H, t); 3.90-3.22 (12H, m); 2.98 (2H, t); 2.81 (3H, s). ¹³C NMR (DMSO-d₆): (δ) 152.2, 151.4, 138.0, 128.8, 128.7, 128.4, 126.5, 125.9, 123.6, 122.1, 114.2, 108.7, 55.4, 53.2, 49.0, 42.0, 40.7, 34.3, 33.3.

2,3-Dihydro-3-ethyl-N-[2-(4-ethylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, 3b. The compound was prepared according to the process reported for **6a**. Yield: 43%, mp: 90-93 °C. ¹H NMR (CDCl₃): (δ) 8.90 (1H, m); 8.20 (1H, d); 7.14 (3H, m); 4.02 (2H, q); 3.52 (2H, q); 2.62 (12H, m); 1.43 (3H, t); 1.10 (3H, t). ¹³C NMR (CDCl₃): (δ) 152.8, 151.8, 128.4, 126.8, 123.5, 122.6, 115.3, 107.4, 56.9, 52.9, 52.7, 52.2, 37.0, 35.8, 13.2, 11.9.

2,3-Dihydro-3-ethyl-2-oxo-N-[2-(4-propylpiperazin-1-yl)ethyl]-1H-benzimidazole-1-carboxamide, 3c. The compound was prepared according to the process reported for **1**. Yield: 63 %, mp: 97-100 °C. ¹H NMR (CDCl₃): (δ) 8.92 (1H, br s); 8.20 (1H, d); 7.17-6.94 (3H, m); 3.90 (2H, q); 3.51 (2H, q); 2.6-2.23 (12H, m); 1.53- 1.21 (5H, m); 0.86 (3H, t). ¹³C NMR (CDCl₃): (δ) 152.8, 151.7, 128.3, 126.7, 123.4, 122.5, 115.3, 107.4, 60.6, 56.8, 53.1, 52.9, 36.9, 35.8, 19.9, 13.1, 11.9.

2,3-Dihydro-3-ethyl-N-[2-[4-(1-methylethyl)piperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide (fumarate), 3d. The compound was prepared according to the process reported for **6a**. Yield: 30%, mp: 208-210 °C. ¹H NMR (DMSO-d₆): (δ) 8.82 (1H, br s); 8.01 (1H, d); 7.22 (3H, m); 3.93 (2H, q); 3.52-2.43 (13H, m); 1.09 (9H, m). ¹³C NMR (DMSO-d₆): (δ) 152.2, 151.0, 128.4, 126.2, 123.6, 122.1, 114.3, 108.5, 55.7, 55.6, 50.3, 47.3, 36.4, 35.4, 16.9, 13.0.

N-[2-(4-Butylpiperazin-1-yl)ethyl]-2,3-dihydro-3-ethyl-2-oxo-1H-benzimidazole-1-carboxamide, (fumarate) 3e. The compound was prepared according to the process reported for **1**. Yield: 40 %, mp: 203-205 °C. ¹H NMR (DMSO-d₆): (δ) 8.93 (1H, br s); 8.20 (1H, d); 7.20 (3H, m); 3.95 (2H, q); 3.55 (2H, q); 2.90-2.40 (12H, m); 1.53 (2H, m); 1.22 (5H, m); 0.91 (3H, t). ¹³C NMR (DMSO-d₆): (δ) 152.1, 151.0, 128.4, 126.2, 123.5, 122.1, 114.3, 108.5, 56.2, 55.9, 51.6, 50.8, 36.4, 35.4, 26.7, 19.8, 13.7, 13.0.

3-Cyclopropyl-2,3-dihydro-2-oxo-N-[2-(4-propylpiperazin-1-yl)ethyl]-1H-benzimidazole-1-carboxamide, 6b. The compound was prepared according to the process reported for **6a**. Yield: 32 %, mp: 62-64 °C. ¹H NMR (CDCl₃): (δ) 8.90 (1H, br s); 8.19 (1H, d);

7.18 (3H, m); 3.51 (2H, q); 2.84 (1H, m); 2.58 (10H, m); 2.30 (2H, m); 1.55 (2H, m); 1.19 (4H, m); 0.92 (3H, t). ^{13}C NMR (CDCl_3): (δ) 153.1, 151.3, 129.2, 125.9, 123.0, 122.2, 114.6, 108.1, 60.2, 56.5, 52.7, 52.5, 36.6, 22.1, 19.5, 11.6, 5.7.

N-[2-[4-Butylpiperazin-1-yl]ethyl]-3-cyclopropyl-2,3-dihydro-2-oxo-1H-benzimidazole-1-carboxamide, 6d. The compound was prepared according to the process reported for **6c**. Yield: 34 %, oil. ^1H NMR (CDCl_3): (δ) 8.80 (1H, br s); 8.03 (1H, d); 7.02 (3H, m); 3.43 (2H, q); 2.76 (1H, m); 2.42 (12H, m); 2.21 (2H, m); 1.51-0.83 (6H, m); 0.81 (3H, t). ^{13}C NMR (CDCl_3): (δ) 153.1, 151.3, 129.2, 125.9, 123.0, 122.2, 114.7, 108.1, 58.0, 56.6, 52.8, 52.6, 36.7, 28.7, 22.1, 20.4, 13.7, 5.7.

3-Cyclopropyl-2,3-dihydro-N-[3-(4-methylpiperazin-1-yl)propyl]-2-oxo-1H-benzimidazole-1-carboxamide, (hydrochloride) 6f. The compound was prepared according to the process reported for **6c**. Yield: 42 %, mp > 250 °C. ^1H NMR ($\text{DMSO}-d_6$): (δ) 7.93 (1H, d); 7.22 (3H, m); 3.50 (10H, m); 3.921 (2H, t); 2.88 (4H, br s); 1.98 (2H, m); 0.97 (4H, m). ^{13}C NMR ($\text{DMSO}-d_6$): (δ) 153.7, 152.4, 130.4, 126.3, 124.8, 123.3, 114.9, 110.1, 54.4, 50.3, 48.8, 42.9, 36.6, 24.6, 23.2, 6.6.

2,3-Dihydro-3-(1-methylethyl)-N-(4-methylpiperazin-1-yl)-2-oxo-1H-benzimidazole-1-carboxamide, 5b. The compound was prepared according to the process reported for **1**. Yield: 78 %, mp: 141-143 °C. ^1H NMR (CDCl_3): (δ) 9.70 (1H, s); 8.31 (1H, m); 7.12 (3H, m); 4.71 (1H, m); 3.01 (4H, m); 2.63 (4H, m); 2.30 (3H, s); 1.61 (6H, d). ^{13}C NMR (CDCl_3): (δ) 152.4, 150.4, 127.9, 126.7, 123.4, 122.4, 115.4, 108.8, 55.6, 54.2, 45.7, 45.5, 19.8.

2,3-Dihydro-3-(1-methylethyl)-N-[(4-methylpiperazin-1-yl)methyl]-2-oxo-1H-benzimidazole-1-carboxamide, 5c. The compound was prepared according to the process reported for **6e**. Yield: 88 %, mp: 71-73 °C. ^1H NMR (CDCl_3): (δ) 9.30 (1H, br s); 8.20 (1H, m); 7.21 (3H, m); 4.71 (1H, m); 4.41 (2H, d); 2.72 (4H, m); 2.53 (4H, m); 2.31 (3H, s); 1.60 (6H, d). ^{13}C NMR (CDCl_3): (δ) 152.5, 152.3, 127.7, 126.7, 123.4, 122.3, 115.4, 108.8, 61.4, 54.8, 49.4, 45.9, 45.4, 19.7.

2,3-Dihydro-3-(1-methylethyl)-N-[3-(4-methylpiperazin-1-yl)propyl]-2-oxo-1H-benzimidazole-1-carboxamide (hydrochloride), 5d. The compound was prepared according to the process reported for **1**. Yield: 87 %, mp: > 240 °C. ^1H NMR ($\text{DMSO}-d_6$): (δ) 8.82 (1H, br s); 8.12 (1H, d); 7.41 (1H, d); 7.25 (2H, m); 4.63 (1H, m); 3.88-3.10 (12H, m); 2.81 (3H, s); 2.02 (2H, m); 1.44 (6H, d). ^{13}C NMR ($\text{DMSO}-d_6$): (δ) 152.2, 151.5, 127.4, 126.5, 122.9, 121.9,

115.0, 108.4, 55.6, 54.6, 52.7, 45.6, 45.0, 37.9, 29.3, 26.4, 19.5.

2,3-Dihydro-N-[2-(4-ethylpiperazin-1-yl)ethyl]-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide (fumarate), 5e. The compound was prepared according to the process reported for **6a**. Yield: 32 %, mp: 190-193 °C. ¹H NMR (DMSO-d₆): (δ) 8.97 (1H, br s); 8.04 (1H, d); 7.41 (1H, d); 7.18 (2H, m); 4.63 (1H, m); 3.41 (2H, q); 2.94-2.43 (12H, m); 1.44 (6H, d); 1.12 (3H, t). ¹³C NMR (DMSO-d₆): (δ) 152.6, 151.9, 127.7, 126.9, 123.2, 122.2, 115.4, 108.9, 56.9, 52.9, 52.7, 52.2, 45.2, 37.0, 20.0, 11.9.

2,3-Dihydro-3-(1-methylethyl)-2-oxo-N-[2-(4-propylpiperazin-1-yl)ethyl]-1H-benzimidazole-1-carboxamide (fumarate), 5f. The compound was prepared according to the process reported for **6a**. Yield: 34 %, mp: 202-205 °C. ¹H NMR (DMSO-d₆): (δ) 8.98 (1H, br s); 8.19 (1H, d); 7.42 (1H, d); 7.19 (2H, m); 4.61 (1H, m); 3.41 (2H, m); 2.92-2.41 (12H, m); 1.55 (8H, m); 0.83 (3H, t). ¹³C NMR (DMSO-d₆): (δ) 151.8, 151.1, 127.7, 126.3, 123.4, 121.8, 114.3, 109.5, 58.2, 56.0, 51.5, 50.8, 44.9, 36.4, 19.4, 18.0, 11.4.

2,3-Dihydro-3-(1-methylethyl)-N-[2-[4-(1-methylethyl)piperazin-1-yl]ethyl]-2-oxo-1H-benzimidazole-1-carboxamide (fumarate), 5g. The compound was prepared according to the process reported for **6a**. Yield: 13 %, mp: 210-212 °C. ¹H NMR (DMSO-d₆): (δ) 8.90 (1H, br s); 8.19 (1H, d); 7.40 (1H, d); 7.13 (2H, m); 4.51 (1H, m); 3.41 (2H, q); 3.04 (1H, m); 2.81 (4H, m); 2.51 (6H, m); 1.49 (6H, d); 1.12 (6H, d). ¹³C NMR (DMSO-d₆): (δ) 152.1, 151.4, 127.3, 126.4, 122.8, 121.7, 114.9, 108.4, 56.5, 54.2, 52.7, 48.2, 44.8, 36.6, 19.5, 18.2.

N-[2-(4-Butylpiperazin-1-yl)ethyl]-2,3-dihydro-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide (fumarate), 5h. The compound was prepared according to the process reported for **1**. Yield: 54 %, mp: 210-212 °C. ¹H NMR (DMSO-d₆): (δ) 8.92 (1H, br s); 8.13 (1H, d); 7.45 (1H, d); 7.23 (2H, m); 4.64 (1H, m); 3.40 (2H, m); 3.12-2.33 (12H, m); 1.62-1.20 (10H, m); 0.86 (3H, t). ¹³C NMR (DMSO-d₆): (δ) 152.6, 151.8, 127.6, 126.8, 123.1, 122.1, 115.3, 108.8, 58.4, 56.9, 53.2, 53.0, 45.2, 36.9, 29.0, 20.7, 19.8, 13.9.

2,3-Dihydro-N-[2-[4-[3-(4-fluorophenoxy)propyl]piperazin-1-yl]ethyl]-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide, 5i. The compound was prepared according to the process reported for **6c**. Yield: 44 %, mp: 90-94 °C. ¹H NMR (CDCl₃): (δ) 9.01 (1H, br s); 8.29 (1H, m); 7.18 (3H, m); 6.98-6.78 (4H, m); 4.72 (1H, m); 3.98 (2H, t); 3.57 (2H, q); 2.60 (12H, m); 1.97 (2H, m); 1.59 (6H, d). ¹³C NMR (CDCl₃): (δ) 157.2 (d, J = 219 Hz), 155.0, 152.1 (d, J = 40 Hz), 127.6, 126.8, 123.1, 122.1, 115.8, 115.6 (d, J = 20 Hz), 115.2 (d,

J = 5 Hz), 108.7, 66.7, 56.8, 54.9, 53.3, 53.0, 52.9, 45.1, 36.9, 26.7, 19.8.

2,3-Dihydro-N-[2-[4-(4-fluorophenylmethyl)piperazin-1-yl]ethyl]-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide (fumarate), 5j. The compound was prepared according to the process reported for **1**. Yield: 60 %, mp: 206-208 °C. ¹H NMR (DMSO-d₆): (δ) 8.97 (1H, br s); 8.09 (1H, d); 7.45-7.03 (7H, m); 4.61 (1H, m); 3.50 (6H, m); 2.80-2.23 (8H, m); 1.41 (6H, d). ¹³C NMR (DMSO-d₆): (δ) 161.4 (d, J = 241 Hz), 151.8, 151.1, 133.2 (d, J = 2 Hz), 131.0 (d, J = 8 Hz), 127.7, 126.2, 123.4, 121.8, 114.9 (d, J = 21 Hz), 114.3, 109.4, 60.5, 59.1, 51.9, 51.7, 44.9, 36.2, 19.4.

2,3-Dihydro-N-[2-[4-(3,4-methylenedioxyphenylmethyl)piperazin-1-yl]ethyl]-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide (fumarate), 5k. The compound was prepared according to the process reported for **6a**. Yield: 19%, mp: 218 °C (dec). ¹H NMR (DMSO-d₆): (δ) 8.88 (1H, br s); 8.12 (1H, d); 7.41 (1H, d); 7.11 (2H, m); 6.88 (3H, m); 5.97 (2H, s); 4.62 (1H, m); 3.69 (2H, s); 3.43 (2H, m); 2.81-2.51 (10H, m); 1.43 (6H, d). ¹³C NMR (DMSO-d₆): (δ) 151.8, 151.2, 147.3, 146.9, 128.7, 127.7, 126.3, 123.4, 123.3, 121.8, 114.4, 109.9, 109.5, 108.0, 101.0, 60.3, 55.8, 51.1, 50.9, 44.9, 38.6, 36.0, 19.4.

6-Chloro-2,3-dihydro-3-(1-methylethyl)-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, 5l. The compound was prepared according to the process reported for **6a**. Yield: 15%, mp: 134-137 °C. ¹H NMR (CDCl₃): (δ) 8.83 (1H, br t); 8.20 (1H, d); 7.05 (1H, dd); 6.95 (1H, d); 4.60 (1H, m); 3.45 (2H, q); 2.61-2.36 (10H, m); 2.21 (3H, s); 1.42 (6H, d). ¹³C NMR (CDCl₃): (δ) 152.3, 151.3, 127.6, 127.4, 126.1, 123.1, 115.5, 109.4, 56.5, 54.8, 52.6, 45.7, 45.4, 36.9, 19.7.

2,3-Dihydro-6-fluoro-3-(1-methylethyl)-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, 5m. The compound was prepared according to the process reported for **6a**. Yield: 32%, mp: 130-134 °C. ¹H NMR (CDCl₃): (δ) 8.83 (1H, br t); 7.80 (1H, d); 6.95 (1H, m); 6.71 (1H, m); 4.53 (1H, m); 3.37 (2H, q); 2.47-2.28 (10H, m); 2.17 (3H, s); 1.39 (6H, d). ¹³C NMR (CDCl₃): (δ) 158.3 (d, J = 236 Hz), 152.5, 151.3, 127.1 (d, J = 13 Hz), 123.6, 109.6 (d, J = 24 Hz), 108.8 (d, J = 9 Hz), 103.5 (d, J = 30 Hz), 56.5, 54.8, 52.7, 45.7, 45.2, 36.8, 20.0.

2,3-Dihydro-6-methoxy-3-(1-methylethyl)-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, 5n. The compound was prepared according to the process reported for **6c**. Yield: 37%, mp: 109-111 °C. ¹H NMR (CDCl₃): (δ) 8.83 (1H, br t); 7.78

(1H, s); 6.81 (1H, d); 6.50 (1H, d); 4.43 (1H, m); 3.55 (3H, s); 3.25 (2H, q); 2.45-2.18 (10H, m); 2.05 (3H, s); 1.32 (6H, d). ¹³C NMR (CDCl₃): (δ) 155.3, 152.4, 151.7, 127.4, 121.1, 109.7, 109.0, 101.0, 56.6, 55.6, 54.8, 52.7, 45.7, 44.9, 36.7, 19.7.

2,3-Dihydro-6-fluoro-3-(1-methylethyl)-N-[2-(4-methylpiperazin-1-yl)ethyl]-5-nitro-2-oxo-1H-benzimidazole-1-carboxamide, 5o. The compound was prepared according to the process reported for **6a**. Yield: 30%, mp: 198-201 °C. ¹H NMR (CDCl₃): (δ) 7.80 (1H, d); 6.98 (1H, d); 5.04 (1H, br t); 4.65 (1H, m); 4.09 (2H, t); 3.53 (2H, q); 3.36 (4H, t); 2.36 (4H, t); 2.23 (3H, s); 1.53 (6H, d). ¹³C NMR (CDCl₃): (δ) 157.5, 154.1, 152.8 (d, J = 257 Hz), 135.4 (d, J = 12 Hz), 130.3 (d, J = 8 Hz), 123.7, 105.2, 97.4 (d, J = 28 Hz), 54.3, 49.7, 45.8, 43.2, 41.2, 39.4, 19.9.

2,3-Dihydro-4-methyl-3-(1-methylethyl)-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, 5q. The compound was prepared according to the process reported for **6c**. Yield: 40 %, mp: 82-84 °C. ¹H NMR (CDCl₃): (δ) 8.85 (1H, br t); 7.95 (1H, d); 6.71 (2H, m); 4.63 (1H, m); 3.30 (2H, q); 2.51-2.23 (13H, m); 2.10 (3H, s); 1.42 (6H, d). ¹³C NMR (CDCl₃): (δ) 152.8, 151.7, 127.0, 126.9, 126.6, 121.7, 118.2, 112.9, 56.6, 54.6, 52.5, 49.5, 47.5, 45.6, 36.7, 19.8.

4-[2-[2,3-Dihydro-3-(1-methylethyl)-2-oxobenzimidazol-1-yl]oxoamino]ethyl]-1,1-dimethylpiperazonium iodide, 5s. The compound was prepared according to the process reported for **5r** from 2,3-dihydro-3-(1-methylethyl)-N-[2-(4-methylpiperazin-1-yl)ethyl]-2-oxo-1H-benzimidazole-1-carboxamide, **5a**. Yield: 70 %, mp: 60 °C (dec). ¹H NMR (CDCl₃): (δ) 9.09 (1H, br s); 8.21 (1H, m); 7.17 (3H, m); 4.70 (1H, m); 3.74 (4H, m); 3.61 (6H, s); 3.53 (2H, m); 3.01 (4H, m); 2.80 (2H, t); 1.58 (6H, d). ¹³C NMR (CDCl₃): (δ) 152.6, 151.9, 127.6, 126.7, 123.4, 122.3, 115.2, 109.0, 62.7, 55.7, 52.2, 46.3, 45.4, 36.5, 19.9.