

Supplementary Information

The title compounds **1b-o** were characterized as follows:

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(4-fluorobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1b).

White powder, Mp: 86.4-87.3°C; ¹H NMR (300 MHz, CDCl₃) δ: 8.23 (1 H, s, triazole-H), 7.74 (1 H, s, triazole-H), 7.04-7.72 (6 H, m, Ar-H), 6.73-7.00 (2 H, m, Ar-H), 5.51 (2 H, s, Ar-CH₂-), 4.65-4.75 (2 H, m, triazole-CH₂-), 3.60-3.96 (2 H, m, triazole-CH₂-), 2.739-3.03 (2 H, m, -CH₂-), 2.08 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 164.8, 161.0, 152.7, 146.4, 146.4, 132.3, 131.8, 131.7, 131.5, 127.7, 123.8, 123.8, 118.1, 117.8, 113.3, 106.0, 74.4, 62.2, 58.0, 55.2, 55.1, 45.9; HR ESI MS: calcd. for C₂₂H₂₃F₃N₇O [M+H]⁺ *m/z*: 458.1911; found: 458.1923.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(2-chlorobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1c).

White powder, Mp: 82.4-83.3°C; ¹H NMR (600 MHz, CDCl₃) δ: 8.08 (1 H, s, triazole-H), 7.74 (1 H, s, triazole-H), 7.21-7.58 (6 H, m, Ar-H, triazole-H), 6.74-6.81 (2 H, m, Ar-H), 5.66 (2 H, s, Ar-CH₂-), 4.50 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 4.45 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.64 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.57 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.06 (1 H, d, *J* = 13.8 Hz, -CH₂-), 4.50 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 2.75 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.10 (3 H, s, NCH₃); ¹³C NMR (125 MHz, CDCl₃) δ: 163.9, 162.8, 151.8, 146.6, 136.1, 135.1, 132.1, 131.4, 131.4, 131.2, 131.2, 127.9, 127.8, 123.2, 113.6, 105.6, 74.3, 62.5, 58.1, 55.1, 55.0, 45.8; HR ESI MS: calcd. for C₂₂H₂₃ClF₂N₇O [M+H]⁺ *m/z*: 474.1615; found: 474.1635.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(4-chlorobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1d).

White powder, Mp: 82.6-84.5°C; ¹H NMR (300 MHz, CDCl₃) δ: 8.06 (1 H, s, triazole-H), 7.76 (1 H, s, triazole-H), 7.54-7.60 (1 H, m, Ar-H), 7.20-7.39 (4 H, m, Ar-H), 7.10 (1 H, s, triazole-H), 6.73-6.85 (2 H, m, Ar-H), 5.51 (2 H, s, Ar-CH₂-), 5.23 (1 H, s, OH), 4.53 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 4.53 (1 H, d, *J* = 14.1 Hz,

triazole-CH₂-), 4.40 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.63 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.55 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.04 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.71 (1 H, d, *J* = 13.5 Hz, -CH₂-), 2.08 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 164.3, 161.1, 152.8, 146.4, 136.7, 134.9, 131.6, 131.2, 131.2, 131.1, 131.1, 127.8, 127.7, 123.9, 113.4, 106.0, 74.4, 62.2, 58.0, 55.3, 55.2, 46.0; HR ESI MS: calcd. for C₂₂H₂₃ClF₂N₇O [M+H]⁺ *m/z*: 474.1615; found: 474.1645.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(2-bromobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1e).

White powder, Mp: 80.2-81.3 °C; ¹H NMR (300 MHz, CDCl₃) δ: 8.10 (1 H, s, triazole-H), 7.74 (1 H, s, triazole-H), 7.52-7.64 (2 H, m, Ar-H), 7.17-7.35 (4 H, m, Ar-H), 6.72-6.82 (2 H, m, Ar-H), 5.66 (2 H, s, Ar-CH₂-), 4.51 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 4.45 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.65 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.58 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.06 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.77 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.11 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 164.1, 160.1, 152.8, 146.8, 138.2, 133.9, 132.8, 132.6, 131.5, 128.3, 128.3, 127.7, 125.1, 124.1, 113.3, 106.1, 74.4, 62.2, 57.8, 55.3, 55.2, 46.0; HR ESI MS: calcd. for C₂₂H₂₃BrF₂N₇O [M+H]⁺ *m/z*: 518.1110; found: 518.1127.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(3-bromobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1f).

White powder, Mp: 76.3-77.2 °C; ¹H NMR (300 MHz, CDCl₃) δ: 8.07 (1 H, s, triazole-H), 7.74 (1 H, s, triazole-H), 7.41-7.61 (4 H, m, Ar-H), 7.16-7.28 (2 H, m, Ar-H), 6.73-6.84 (2 H, m, Ar-H), 5.56 (2 H, s, Ar-CH₂-), 5.25 (1 H, s, OH), 4.46 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 4.39 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.64 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.55 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.04 (1 H, d, *J* = 13.5 Hz, -CH₂-), 2.72 (1 H, d, *J* = 14.1 Hz, -CH₂-), 2.09 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 164.4, 160.7, 152.7, 146.5, 138.7, 133.8, 132.9, 132.5, 131.6, 128.4, 128.4, 127.8, 125.0, 124.0, 113.4, 106.0, 74.4, 62.1, 57.9, 55.2, 55.1, 46.0; HR ESI MS: calcd. for C₂₂H₂₃BrF₂N₇O [M+H]⁺ *m/z*: 518.1110; found: 518.1121.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-*N*-methyl-*N*-[(1-(4-bromobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1g).

White powder, Mp: 78.9-81.3°C; ¹H NMR (300 MHz, CDCl₃) δ: 8.03 (1 H, s, triazole-H), 7.68 (1 H, s, triazole-H), 7.08-7.62 (7 H, m, Ar-H), 6.68-6.77 (2 H, m, Ar-H), 5.43 (2 H, s, Ar-CH₂-), 5.25 (1 H, s, OH), 4.46 (1 H, d, *J* = 13.8 Hz, triazole-CH₂-), 4.36 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.58 (1 H, d, *J* = 13.8 Hz, triazole-CH₂-), 3.49 (1 H, d, *J* = 13.8 Hz, triazole-CH₂-), 3.01 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.67 (1 H, d, *J* = 13.5 Hz, -CH₂-), 2.02 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 164.3, 160.6, 152.6, 146.4, 138.6, 133.7, 132.8, 132.4, 131.5, 128.2, 128.2, 127.7, 125.1, 124.2, 113.6, 106.1, 74.2, 62.1, 57.9, 55.3, 55.2, 46.1; HR ESI MS: calcd. for C₂₂H₂₃BrF₂N₇O [M+H]⁺ *m/z*: 518.1110; found: 518.1124.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(2-methylbenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1h).

White powder, Mp: 96.4-97.3°C; ¹H NMR (300 MHz, CDCl₃) δ: 8.20 (1 H, s, triazole-H), 7.78 (1 H, s, triazole-H), 7.54 (1 H, s, Ar-H), 7.04-7.31 (5 H, m, Ar-H, triazole-H), 6.73-6.99 (2 H, m, Ar-H), 5.54 (2 H, s, Ar-CH₂-), 4.55 (2 H, s, triazole-CH₂-), 3.60 (2 H, m, triazole-CH₂-), 2.74-3.03 (2 H, m, -CH₂-), 2.27 (3 H, s, CH₃), 2.09 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 164.7, 160.8, 153.5, 146.0, 139.1, 134.3, 132.9, 132.9, 131.6, 131.3, 131.0, 128.6, 128.6, 123.9, 113.4, 106.0, 74.6, 62.3, 58.1, 55.1, 54.2, 46.0, 20.8; HR ESI MS: calcd. for C₂₃H₂₆F₂N₇O [M+H]⁺ *m/z*: 454.2161; found: 454.2672.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(4-methylbenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1i).

White powder, Mp: 97.3-99.3°C; ¹H NMR (300 MHz, CDCl₃) δ: 8.08 (1 H, s, triazole-H), 7.73 (1 H, s, triazole-H), 7.51-7.60 (1 H, m, Ar-H), 7.15-7.31 (5 H, m, Ar-H, triazole-H), 6.71-6.81 (2 H, m, Ar-H), 5.48 (2 H, s, Ar-CH₂-), 4.49 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 4.42 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.62 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.54 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.04 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.74 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.35 (3 H, s, CH₃), 2.09 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 164.8, 160.4, 153.4, 146.2, 139.0, 134.2, 132.8, 132.8, 131.9, 131.5, 131.2, 128.6, 128.6, 123.8, 113.6, 106.0, 74.4, 62.3, 58.0, 55.2, 54.1, 46.0, 20.6; HR ESI MS: calcd. for C₂₃H₂₆F₂N₇O [M+H]⁺ *m/z*: 454.2161;

found: 454.2676.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(2-nitrobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1j).

White powder, Mp: 113.2-114.6 °C; ¹H NMR (600 MHz, CDCl₃) δ: 8.12-8.14 (2 H, m, Ar-H, triazole-H), 7.77 (1 H, s, triazole-H), 7.17-7.66 (6 H, m, Ar-H, triazole-H), 6.76-6.80 (2 H, m, Ar-H), 5.93 (2 H, s, Ar-CH₂-), 4.46-4.57 (2 H, m, triazole-CH₂-), 3.61-3.69 (2 H, m, triazole-CH₂-), 2.74-3.13 (2 H, m, CH₂), 2.13 (3 H, s, NCH₃); ¹³C NMR (125 MHz, CDCl₃) δ: 162.5, 160.8, 152.7, 150.5, 146.6, 138.6, 135.7, 132.1, 132.1, 131.5, 125.6, 125.6, 124.6, 124.1, 113.4, 106.0, 74.3, 62.0, 57.8, 55.1, 54.9, 46.0; HR ESI MS: calcd. for C₂₂H₂₃F₂N₈O [M+H]⁺ *m/z*: 485.1856; found: 485.1867.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(3-nitrobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1k).

White powder, Mp: 115.3-117.1 °C; ¹H NMR (300 MHz, CDCl₃) δ: 8.15-8.22 (2 H, m, Ar-H), 8.07 (1 H, s, triazole-H), 7.77 (1 H, s, triazole-H), 7.56-7.64 (3 H, m, Ar-H), 7.18 (1 H, s, triazole-H), 6.75-6.86 (2 H, m, Ar-H), 5.66 (2 H, s, Ar-CH₂-), 4.55 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 4.39 (1 H, d, *J* = 14.7 Hz, triazole-CH₂-), 3.66 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.57 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.05 (1 H, d, *J* = 13.5 Hz, -CH₂-), 2.70 (1 H, d, *J* = 13.5 Hz, -CH₂-), 2.08 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 164.7, 160.2, 151.0, 148.2, 144.6, 141.5, 129.7, 128.5, 128.5, 126.2, 124.3, 124.3, 122.1, 111.6, 104.2, 73.4, 60.3, 56.1, 53.5, 53.1, 44.6; HR ESI MS: calcd. for C₂₂H₂₃F₂N₈O [M+H]⁺ *m/z*: 485.1856; found: 485.1875.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(4-nitrobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1l).

White powder, Mp: 116.4-118.2 °C; ¹H NMR (300 MHz, CDCl₃) δ: 8.23 (2 H, d, *J* = 2.4 Hz, Ar-H), 8.07 (1 H, s, triazole-H), 7.78 (1 H, s, triazole-H), 7.56-7.64 (1 H, m, Ar-H), 7.43 (2 H, d, *J* = 2.4 Hz, Ar-H), 7.15 (1 H, s, triazole-H), 6.75-6.87 (2 H, m, Ar-H), 5.67 (2 H, s, Ar-CH₂-), 5.16 (1 H, s, OH), 4.56 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 4.39 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.67 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.57 (1 H, d, *J* = 14.1 Hz, triazole-CH₂-), 3.05 (1 H, d, *J* = 13.8 Hz,

-CH₂-), 2.70 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.08 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ: 162.7, 158.9, 151.0, 148.1, 144.9, 141.7, 129.6, 128.6, 128.5, 126.0, 124.2, 124.2, 122.3, 111.5, 104.2, 72.5, 60.2, 56.0, 53.3, 53.1, 44.1; HR ESI MS: calcd. for C₂₂H₂₃F₂N₈O [M+H]⁺ *m/z*: 485.1856; found: 485.1877.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(2-cyanobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1m).

White powder, Mp: 98.1-99.2 °C; ¹H NMR (600 MHz, CDCl₃) δ: 8.09 (1 H, s, triazole-H), 7.76 (1 H, s, triazole-H), 7.42-7.74 (6 H, m, Ar-H, triazole-H), 6.76-6.82 (2 H, m, Ar-H), 5.75 (2 H, s, Ar-CH₂-), 4.52 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 4.44 (1 H, d, *J* = 13.8 Hz, triazole-CH₂-), 3.65 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.58 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.07 (1 H, d, *J* = 13.2 Hz, -CH₂-), 2.75 (1 H, d, *J* = 13.8 Hz, -CH₂-), 2.10 (3 H, s, NCH₃); ¹³C NMR (125 MHz, CDCl₃) δ: 164.7, 160.2, 152.9, 146.7, 141.8, 134.5, 134.5, 131.6, 130.1, 130.1, 127.3, 124.3, 119.5, 114.2, 113.2, 106.4, 74.2, 62.0, 57.8, 55.3, 55.1, 46.1; HR ESI MS: calcd. for C₂₃H₂₃F₂N₈O [M+H]⁺ *m/z*: 465.1957; found: 465.1977.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(3-cyanobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1n).

White powder, Mp: 99.6-101.1 °C; ¹H NMR (600 MHz, CDCl₃) δ: 8.18 (1 H, s, triazole-H), 7.80 (1 H, s, triazole-H), 7.51-7.66 (5 H, m, Ar-H), 7.29 (1 H, s, triazole-H), 6.77-6.83 (2 H, m, Ar-H), 5.86 (2 H, s, Ar-CH₂-), 4.56 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 4.44 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.69 (1 H, d, *J* = 14.4 Hz, triazole-CH₂-), 3.61 (1 H, d, *J* = 13.8 Hz, triazole-CH₂-), 3.07 (1 H, d, *J* = 13.2 Hz, -CH₂-), 2.77 (1 H, d, *J* = 13.2 Hz, -CH₂-), 2.11 (3 H, s, NCH₃); ¹³C NMR (125 MHz, CDCl₃) δ: 164.6, 160.6, 152.6, 146.7, 141.8, 134.7, 134.7, 131.7, 130.2, 130.2, 127.8, 124.3, 119.8, 114.6, 113.5, 106.0, 74.3, 62.0, 57.7, 55.3, 55.2, 46.0; HR ESI MS: calcd. for C₂₃H₂₃F₂N₈O [M+H]⁺ *m/z*: 465.1957; found: 465.1979.

1-(1*H*-1,2,4-triazol-1-yl)-2-(2,4-difluorophenyl)-3-{*N*-methyl-*N*-[(1-(4-cyanobenzyl)-1*H*-1,2,3-triazol-4-yl)methyl]amino}-2-propanol (1o).

White powder, Mp: 98.6-100.2 °C; ¹H NMR (300 MHz, CDCl₃) δ: 8.07 (1 H, s, triazole-H), 7.76 (1 H, s, triazole-H), 7.67 (2 H, d, *J* = 8.4 Hz, Ar-H), 7.56-7.64 (1 H,

m, Ar-H), 7.35 (2 H, d, $J = 8.4$ Hz, Ar-H), 7.16 (1 H, s, triazole-H), 6.75-6.86 (2 H, m, Ar-H), 5.62 (2 H, s, Ar-CH₂-), 4.55 (1 H, d, $J = 14.4$ Hz, triazole-CH₂-), 4.39 (1 H, d, $J = 14.1$ Hz, triazole-CH₂-), 3.66 (1 H, d, $J = 14.1$ Hz, triazole-CH₂-), 3.57 (1 H, d, $J = 14.1$ Hz, triazole-CH₂-), 3.05 (1 H, d, $J = 13.8$ Hz, -CH₂-), 2.71 (1 H, d, $J = 13.8$ Hz, -CH₂-), 2.08 (3 H, s, NCH₃); ¹³C NMR (75 MHz, CDCl₃) δ : 164.1, 160.7, 152.7, 146.7, 141.7, 134.7, 134.7, 131.6, 130.2, 130.2, 127.9, 124.2, 119.9, 114.7, 113.4, 106.1, 74.4, 62.0, 57.7, 55.2, 55.1, 46.0; HR ESI MS: calcd. for C₂₃H₂₃F₂N₈O [M+H]⁺ m/z : 465.1957; found: 465.1973.