Supporting Information for

Design, synthesis, and structure-activity relationships of 1,3,4-oxadiazol-2(*3H*)-ones as novel FAAH inhibitors

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^{1}H and ^{13}C NMR spectra were recorded at 20 °C on a Bruker DPX 400 spectrometer at 400 MHz and 100 MHz, respectively. Chemical shifts (δ) are given in ppm, referenced to the residual proton resonance of the solvents (7.27 ppm for $CDCl_3$; 2.50 ppm for DMSO-d_6, 2.05 for Acetone-d_6) and carbon resonance of the solvents (77.0 ppm for CDCl3; 39.51 ppm for DMSO-d_6, and 29.92 ppm for Acetone-d_6).
Melting points were measured on a Electrothermal Model 9100 hot storage apparatus.
Elemental analysis was performed on a Fisons EA 1110 EA CNHS Instrument.

3-(3-chlorophenyl)-5-methoxy-1,3,4-oxadiazol-2(*3H*)-one, (7). Yield, 39 %. Mp 84 ºC. Anal. found: C, 47.85; H, 3.33; N, 12.34. $C_9H_7ClN_2O_3$ requires C, 47.7; H, 3.11; N, 12.36%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.83 (1H, t, J = 2 Hz), 7.76 (1H, d br, J = 8.4 Hz), 7.36 (1H, t, J = 7.2 Hz), 7.21 (1H, d br, J = 8.0 Hz), 4.14 (3H, s). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 155.7, 147.7, 136.9, 134.8, 130, 125.4, 117.8, 115.6, 57.9.

3-(3-chlorophenyl)-5-morpholino-1,3,4-oxadiazol-2(*3H*)-one, (14). Yield, 54 %. Mp 109 ºC. Anal. found: C, 50.94; H, 4.24; N, 14.79. $C_{12}H_{12}ClN_3O_3$ requires C, 51.16; H, 4.29; N, 14.92%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.79 (1H, t, J = 2.2 Hz), 7.72 (1H, d d d, J = 1.0, 2.2, 8.3 Hz), 7.29 (1H, t, J = 8.1 Hz), 7.13 (1H, d d d, J = 1.0, 2.0, 8.1 Hz), 3.78 (4H, m, J = 4.7 Hz), 3.40 (4H, m, J = 4.7 Hz). ^{13C} NMR (100 MHz, $CDCl_3$) δ, 153.1, 148.5, 137.2, 134.6, 129.9, 124.9, 117.6, 115.4, 65.8, 44.9.

3,5-diphenyl-1,3,4-oxadiazol-2(*3H*)-one, (15). Yield, 52 %. Mp 112 ºC. Anal. found: C, 70.29; H, 4.43; N, 11.78. $C_{14}H_{10}N_2O_2$ requires C, 70.58; H, 4.23; N, 11.76%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.96 (4H, m), 7.61 (5H, m), 7.30 (1H, m t, J = 7.9 Hz). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 153.3, 150.4, 135.8, 131.7, 129, 128.8, 126, 125.8, 123.3, 118.1.

5-benzoyl-3-phenyl-1,3,4-oxadiazol-2(*3H*)-one, (16). Yield, 8 %. Mp 111 ºC. Anal. found: C, 67.44; H, 3.7; N, 10.09. $C_{15}H_{10}N_2O_3$ requires C, 67.67; H, 3.79; N, 10.52%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 8.37 (2H, m d, J = 1.2, 8.3 Hz), 7.95 (2H, m d, J = 1.2, 8.8 Hz), 7.74 (1H, t t, J = 1.2, 7.3 Hz), 7.60 (2H, m t, J = 7.8 Hz), 7.53 (2H, m t, J = 8.1 Hz), 7.38 (1H, t t, J = 1.0, 6.8 Hz). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 176.2, 149.1, 135.1, 134.7, 133.5, 130.2, 129.3, 128.7, 127.1, 118.7.

5-benzyl-3-phenyl-1,3,4-oxadiazol-2(*3H*)-one, (17). Yield, 26 %. Mp 70 ºC. Anal. found: C, 71.24; H, 4.74; N, 11.12. $C_{15}H_{12}N_2O_2$ requires C, 71.42; H, 4.79; N, 11.10%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.86 (1H, d d, J = 1.2, 8.8 Hz), 7.45 (1H, m t, J = 8.2

Hz), 7.42-7.31 (5H, m), 7.27 (1H, m t, J = 7.5 Hz), 3.98 (2H, s). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 155.1, 150.7, 135.7, 132.4, 129, 128.8, 128.8, 127.6, 125.8, 118, 33.1.

3-benzyl-5-(benzyloxy)-1,3,4-oxadiazol-2(*3H*)-one, (18). Yield, 38 %. Mp 50 ºC. Anal. found: C, 68.17; H, 4.84; N, 9.90. $C_{16}H_{14}N_2O_3$ requires C, 68.07; H, 5.00; N, 9.92%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.41-7.32 (10H, m), 5.24 (2H, s), 4.80 (2H, s). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 154.5, 151.1, 134.8, 133.2, 129, 128.6, 128.5, 128.5, 128.1, 128.1, 72.5, 49.5.

5-phenoxy-3-phenyl-1,3,4-oxadiazol-2(*3H*)-one, (19a). Yield, 6 %. Mp 93 ºC. Anal. found: C, 65.75; H, 3.84; N, 10.89. $C_{14}H_{10}N_2O_3$ requires C, 66.14; H, 3.96; N, 11.02%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.77 (2H, m d, J = 8.8 Hz), 7.48 (2H, m t, J = 8.0 Hz), 7.40 (4H, m), 7.34 (1H, t t, J = 1.0, 7.4 Hz), 7.23 (1H, t t, J = 1.2, 7.4 Hz). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 153.7, 151.4, 147.7, 135.7, 129.8, 128.9, 126.6, 125.6, 119.4, 117.9.

5-(4-methoxyphenoxy)-3-phenyl-1,3,4-oxadiazol-2(*3H*)-one, (19b). Yield, 35 %. Mp 61-62 ºC. Anal. found: C, 62.97; H, 4.67; N, 9.60. $C_{15}H_{12}N_2O_4$ requires C, 63.38; H, 4.25; N, 9.85%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.76 (2H, m d, J = 8.8 Hz), 7.41 (2H, m t, J = 8.3 Hz), 7.31 (2H, m d, J = 9.3 Hz), 7.23 (1H, t t, J = 1.0, 7.3 Hz), 6.97 (2H, m d, J = 9.3 Hz), 3.87 (3H, s). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 157.6, 154.3, 147.8, 144.8, 135.7, 128.9, 125.5, 120.6, 117.9, 114.6, 55.7.

5-(4-hydroxyphenoxy)-3-phenyl-1,3,4-oxadiazol-2(*3H*)-one, (19c). Yield, 24 %. Mp 176-177 ºC. Anal. found: C, 61.84; H, 3.70; N, 10.22. $C_{14}H_{10}N_2O_4$ requires C, 62.22; H, 3.73; N, 10.37%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.70 (1H, s), 7.61 (2H, m d, J = 8.5 Hz), 7.43 (2H, m t, J = 8.3 Hz), 7.29 (2H, m d, J = 9.0 Hz)7.23 (1H, m t, J = 7.6 Hz), 6.83 (2H, m d, J = 9.0 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 155.5, 154, 147.6, 143.4, 135.6, 129, 125.3, 120.8, 117.6, 115.8.

5-(4-chlorophenoxy)-3-phenyl-1,3,4-oxadiazol-2(*3H*)-one, (19d). Yield, 18 %. Mp 105-106 ºC. Anal. found: C, 57.71; H, 3.16; N, 9.53. $C_{14}H_9ClN_2O_3$ requires C, 58.25; H, 3.14; N, 9.70%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.76 (2H, m d, J = 8.3 Hz), 7.45 (2H, m d, J = 9.0 Hz), 7.42 (2H, m t, 7.8 Hz), 7.37 (2H, m d, J = 9.0 Hz), 7.25 (1H, t t, J = 1.2, 7.3 Hz). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 153.5, 149.7, 147.6, 135.6, 132, 129.9, 129, 125.7, 120.9, 117.9.

5-(2,4-difluorophenoxy)-3-phenyl-1,3,4-oxadiazol-2(*3H*)-one, (19e). Yield, 13 %. Mp 76.5-77.5 ºC. Anal. found: C, 58.00; H, 2.73; N, 9.57. $C_{14}H_8F_2N_2O_3$ requires C, 57.94; H, 2.78; N, 9.65%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.68 (2H, m d, J = 8.6 Hz), 7.41 (1H, d t, J = 5.4, 9.0 Hz), 7.36 (2H m), 7.20 (1H, m t, J = 7.3 Hz), 7.01 (1H, d d d, J = 2.9, 8.3, 11.0 Hz), 6.95 (1H, m). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 160.5 (d d, J = 10.0, 247.0 Hz), 153.6, 153.2 (d d, J = 13.0, 254.0 Hz), 147.6, 135.5, 134.8 (d d, J = 4.0, 12.0 Hz), 128.9, 125.8, 123 (d, J = 10.0 Hz), 118, 111.7 (d d, J = 4.0, 24.0 Hz), 105.9 (d d, J = 21.5, 27.0 Hz).

5-(4-bromo-2-methoxyphenoxy)-3-phenyl-1,3,4-oxadiazol-2(*3H*)-one, (19f). Yield, 35 %. Mp 77-78 ºC. Anal. found: C, 49.71; H, 2.93; N, 7.66. $C_{15}H_{11}BrN_2O_4$ requires C, 49.61; H, 3.05; N, 7.71%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.69 (2H, m d, J = 8.8 Hz), 7.36 (2H, m t, J = 8.8 Hz), 7.18 (1H, m), 7.17 (1H, d, J = 8.3 Hz), 7.15 (1H, d, J = 2.0

Hz), 7.12 (1H, d d , J = 2.0, 8.3 Hz), 3.86 (3H, s). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 153.8, 150.9, 147.8, 139.2, 135.7, 128.9, 125.6, 123.7, 122.7, 120.6, 117.9, 116.5, 56.4.

4-(2-oxo-5-phenoxy-1,3,4-oxadiazol-3(*2H*)-yl)benzonitrile, (19g). Yield, 18 %. Mp 100 ºC. Anal. found: C, 64.51; H, 3.16; N, 14.95. $C_{15}H_9N_3O_3$ requires C, 64.52; H, 3.25; N, 15.05%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.91 (2H, m d, J = 9.0 Hz), 7.70 (2H, m d, J = 9.0 Hz), 7.49 (2H, m), 7.38 (2H, m), 7.37 (1H, m). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 154.3, 151.1, 147.2, 139, 133.1, 129.9, 127, 119.5, 118.2, 117.8, 108.8.

3-(3-nitrophenyl)-5-phenoxy-1,3,4-oxadiazol-2(*3H*)-one, (19h). Yield, 31 %. Mp 117 ºC. Anal. found: C, 56.16; H, 2.95; N, 13.91. $C_{14}H_9N_3O_5$ requires C, 56.19; H, 3.03; N, 14.04%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 8.58 (1H, t, J = 2.1 Hz), 8.19 (1H, m d d, J = 2.1, 8.4 Hz), 8.08 (1H, m d d, J = 2.1, 8.2 Hz), 7.60 (1H, t, J = 8.2 Hz), 7.51 (2H, m t, J = 8.0 Hz), 7.39 (2H, d, J = 8.0 Hz), 7.38 (1H, m). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 154.2, 151.1, 148.4, 147.4, 136.7, 130, 130, 127, 123, 120.1, 119.5, 112.8.

3-(2-methoxyphenyl)-5-phenoxy-1,3,4-oxadiazol-2(*3H*)-one, (19i). Yield, 5 %. Mp 121-122 ºC. Anal. found: C, 63.26; H, 4.38; N, 9.71. $C_{15}H_{12}N_2O_4$ requires C, 63.38; H, 4.25; N, 9.85%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.43-7.31 (6H, m), 7.24 (1H, t t, J = 1.3, 7.2 Hz), 6.97 (2H, m), 3.86 (3H, s). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 155, 154, 151.6, 149.8, 131, 129.9, 128.6, 126.5, 123.3, 120.7, 119.5, 112.4, 56.2.

3-(4-hydroxyphenyl)-5-phenoxy-1,3,4-oxadiazol-2(*3H*)-one, (19j). Yield, 40 %. Mp 159-160 ºC. Anal. found: C, 62.24; H, 3.76; N, 10.21. $C_{14}H_{10}N_2O_4$ requires C, 62.22; H, 3.73; N, 10.37%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 7.57 (2H, m d, J = 9.0 Hz), 7.44 (2H, m t, J = 8.0 Hz), 7.34 (2H, m d, J = 9.0 Hz), 7.30 (1H, m, J = 7.3 Hz), 6.83 (2H, m d, J = 9.0 Hz), 4.98 (1H, d, J = 1.4 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 155.3, 153, 151.3, 147.8, 129.9, 127.1, 126.5, 120.5, 119.5, 115.4.

3-(3-hydroxyphenyl)-5-phenoxy-1,3,4-oxadiazol-2(*3H*)-one, (19k). Yield, 23 %. Mp 116-117 ºC. Anal. found: C, 62.23; H, 3.80; N, 10.33. $C_{14}H_{10}N_2O_4$ requires C, 62.22; H, 3.73; N, 10.37%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.78 (1H, s), 7.53 (4H, m), 7.38 (1H, m), 7.23 (1H, t, J = 8.0 Hz), 7.10 (1H, m), 7.08 (1H, m), 6.62 (1H, d d d, J = 0.8, 2.2, 8.1 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 158, 153.6, 151.6, 147.8, 136.9, 130.2, 130.2, 126.9, 119.8, 112.7, 108.2, 104.8.

3-(2-fluorophenyl)-5-phenoxy-1,3,4-oxadiazol-2(*3H*)-one, (19l). Yield, 12 %. Mp 60-61 ºC. Anal. found: C, 62.13; H, 3.27; N, 10.21. $C_{14}H_9FN_2O_3$ requires C, 61.77; H, 3.33; N, 10.29%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.50 (1H, m t, J = 7.6 Hz), 7.46 (2H, t, 7.3 Hz), 7.39 (3H, m), 7.32 (1H, t, J = 7.3 Hz), 7.23 (2H, m). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 156.2 (d, J = 254.0 Hz), 154.3, 151.3, 148.8, 130.3 (d, J = 8.0 Hz), 129.8, 126.9, 126.6, 124.4 (d, J = 4.0 Hz), 122.5 (d, J = 12.0 Hz), 119.4, 116.9 (d, J = 19.0 Hz).

3-(2,4-difluorophenyl)-5-phenoxy-1,3,4-oxadiazol-2(*3H*)-one, (19m). Yield, 4 %. Mp 49-50 ºC. Anal. found: C, 57.70; H, 2.85; N, 9.01. $C_{14}H_8F_2N_2O_3$ requires C, 57.94; H, 2.78; N, 9.65%. ^{1}H NMR (400MHz, $CDCl_3$) δ, 7.48 (1H, m), 7.47 (2H, m t, J = 8.5 Hz), 7.38 (2H, m d, J = 8.8 Hz), 7.31 (1H, t, J = 7.3 Hz), 6.98 (2H, m). ^{13}C NMR (100 MHz, $CDCl_3$) δ, 162.4 (d d, J = 11.5, 251.5 Hz), 156.8 (d d, J = 12.0, 255.0 Hz), 154.4, 151.2, 148.9, 129.9, 128.3 (d, J = 10.5 Hz), 126.7, 120.8 (d, J = 12.5 Hz), 119.4, 111.8 (d, J = 3.5, 22.5 Hz), 105.3 (d d, J = 23.0, 26.5 Hz).

3-(4-hydroxyphenyl)-5-(4-nitrophenoxy)-1,3,4-oxadiazol-2(*3H*)-one, (19n). Yield, 4 %. Mp 174.5-175 ºC. Anal. found: C, 53.43; H, 3.00; N, 13.28. $C_{14}H_9N_3O_6$ requires C, 53.34; H, 2.88; N, 13.33%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.70 (1H, s), 8.39 (2H, m d, J = 9.3 Hz), 7.84 (2H, m d, J = 9.3 Hz), 7.43 (2H, m d, J = 9.0 Hz), 6.84 (2H, m d, J = 9.0 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 155.9, 155.8, 152.4, 148.1, 145.3, 127.3, 126.1, 120.9, 120.6, 115.6.

5-(4-chlorophenoxy)-3-(4-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19o). Yield, 12 %. Mp 146.5-147 ºC. Anal. found: C, 55.21; H, 2.99; N, 8.82. $C_{14}H_9ClN_2O_4$ requires C, 55.19; H, 2.98; N, 9.19%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.68 (1H, s br), 7.58 (4H, m), 7.40 (2H, m d, J = 9.1 Hz), 6.83 (2H, m d, J = 9.1 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 155.3, 152.9, 149.9, 147.8, 130.5, 129.8, 127.1, 121.5, 120.5, 115.4.

5-(2,4-dichlorophenoxy)-3-(4-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19p). Yield, 17 %. Mp 177.5-178 ºC. Anal. found: C, 49.64; H, 2.25; N, 8.13. $C_{14}H_8Cl_2N_2O_4$ requires C, 49.58; H, 2.38; N, 8.26%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.70 (1H, s), 7.91 (1H, d, J = 1.8 Hz), 7.83 (1H, d, J = 8.8 Hz), 7.61 (1H, d d, J = 1.8, 8.8), 7.37 (2H, m d, J = 8.6 Hz), 6.82 (2H, m d, J = 8.6 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 155.4, 152.4, 147.6, 145.6, 131.7, 130.1, 128.9, 126.8, 125.3, 123.5, 120.7, 115.4.

5-(2-fluorophenoxy)-3-(4-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19q). Yield, 10 %. Mp 185-186 ºC. Anal. found: C, 58.34; H, 3.30; N, 9.60. $C_{14}H_9FN_2O4$ requires C, 58.34; H, 3.15; N, 9.72%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.67 (1H, s br), 7.71 (1H, d t, J = 1.5, 8.0 Hz), 7.48 (1H, m), 7.40 (1H, m), 7.35 (2H, m d, J = 9.0 Hz), 7.32 (1H, m), 6.80 (2H, m d, J = 9.0 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 155.8, 153.1, 152.5 (d, J = 249.0 Hz), 148.0, 138.3 (d, J = 12.0 Hz), 128.7 (d, J = 7.3 Hz), 127.2, 125.6 (d, J = 4.0 Hz), 122.8, 121.0, 117.5 (d, J = 17.5 Hz), 115.7.

5-(4-fluorophenoxy)-3-(4-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19r). Yield, 11 %. Mp 155-156 ºC. Anal. found: C, 58.23; H, 3.24; N, 9.60. $C_{14}H_9FN_2O_4$ requires C, 58.34; H, 3.15; N, 9.72%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.67 (1H, s br), 7.58 (2H, m), 7.40 (2H, m d, J = 9.0 Hz)), 7.36 (2H, m t, J = 8.8 Hz), 6.83 (2H, m d, J = 9.0 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 159.6 (d, J = 242.0 Hz), 155.3, 153.2, 147.8, 147.2 (d, J = 3.0 Hz), 127.1, 121.7 (d, J = 9.0 Hz), 120.5, 116.6 (d, J = 24.0 Hz), 115.4.

5-(2,4-difluorophenoxy)-3-(4-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19s). Yield, 20 %. Mp 174.5-175.5 ºC. Anal. found: C, 55.23; H, 2.65; N, 9.09. $C_{14}H_8F_2N_2O_4$ requires C, 54.91; H, 2.63; N, 9.15%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.69 (1H, s), 7.82 (1H, d t, J = 5.7, 9.1 Hz), 7.62 (1H, m, J = 2.9, 9.1 Hz), 7.37 (2H, m d, J = 9.0 Hz), 7.27 (1H, t br, J = 9.1 Hz), 6.82 (2H, m d, J = 9.0 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 159.6 (d d, J = 11.0, 246.0 Hz), 155.4, 152.8, 152.3 (d d, J = 13.0, 251.0 Hz), 147.7, 134.6 (d d, J = 4.0, 12.0 Hz), 126.9, 123.8 (d, J = 10.0 Hz), 120.7, 115.4, 112.2 (d d, J = 4.0, 24.0 Hz), 105.8 (d d, J = 21.5, 27.5 Hz).

5-(4-chlorophenoxy)-3-(2-fluoro-4-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19t). Yield, 10 %. Mp 180-182 ºC. Anal. found: C, 51.77; H, 2.50; N, 8.50. $C_{14}H_8ClFN_2O_4$ requires C, 52.11; H, 2.50; N, 8.68%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 10.47 (1H, s br), 7.56 (4H, m), 7.37 (1H, t, J = 8.6 Hz), 6.71 (2H, m). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 159.9 (d, J = 11.0 Hz), 157.3 (d, J = 250.0 Hz), 153.7, 150.1, 149.4,

130.9, 130.1, 129.4, 121.9, 113.4 (d, J = 12.0 Hz), 112 (d, J = 2.0 Hz), 103.3 (d, J = 21.0 Hz).

5-(4-chlorophenoxy)-3-(3-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19u). Yield, 12 %. Mp 166-167 ºC. Anal. found: C, 55.31; H, 3.01; N, 9.12. $C_{14}H_9ClN_2O_4$ requires C, 55.19; H, 2.98; N, 9.19%. ^{1}H NMR (400MHz, Acetone-d_6) δ, 7.58 (4H, m), 7.24 (1H, t, J = 8.3 Hz), 7.21 (1H, d, J = 2.4 Hz), 7.17 (1H, d d d, J = 1.0, 2.0, 8.0 Hz), 6.72 (1H, d d d, J = 1.0, 2.4, 8.0 Hz). ^{13}C NMR (100 MHz, Acetone-d_6) δ, 159, 154.9, 151.5, 148.8, 138.3, 132.5, 131, 130.9, 122.6, 113.5, 109.6, 105.9.

5-(4-fluorophenoxy)-3-(3-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19v). Yield, 9 %. Mp 163-164 ºC. Anal. found: C, 58.44; H, 3.12; N, 9.65. $C_{14}H_9FN_2O_4$ requires C, 58.34; H, 3.15; N, 9.72%. ^{1}H NMR (400MHz, Acetone-d_6) δ, 7.56 (2H, m), 7.28 (2H, m), 7.20 (1H, t, J = 8.0 Hz), 7.18 (1H, d, J = 2.0 Hz), 7.13 (1H, d d d, J = 1.2, 2.2, 8.3 Hz), 6.68 (1H, d d d, J = 1.2, 2.4, 8.1 Hz). ^{13}C NMR (100 MHz, Acetone-d_6) δ, 161.5 (d, J = 244.0 Hz), 159.0, 155.2, 148.8, 148.8, 138.3, 130.9, 122.9 (d, J = 9.0 Hz), 117.6 (d, J = 24.0 Hz), 113.4, 109.6, 105.9.

5-(2,4-difluorophenoxy)-3-(3-hydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19w). Yield, 15 %. Mp 163-164 ºC. Anal. found: C, 55.19; H, 2.75; N, 8.90. $C_{14}H_8F_2N_2O_4$ requires C, 54.91; H, 2.63; N, 9.15%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.79 (1H, s), 7.84 (1H, m, J = 6.9 Hz), 7.65 (1H, d d d, J = 3.0, 9.0, 11.0 Hz), 7.29 (1H, m t, J = 8.5 Hz), 7.23 (1H, t, J = 7.9 Hz), 7.07, 7.05 (2H, m), 6.64 (1H, m d, J = 8.2 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 160.0 (d d, J = 10.0, 246.0 Hz), 158, 153.4, 152.7 (d d, J = 13.0, 251.0 Hz), 147.6, 136.7, 134.9 (d d, J = 4.0, 12.0, Hz), 130.3, 124.2 (d, J = 10.0 Hz), 112.9, 112.5 (d d, J = 4.0, 24.0 Hz), 108.3, 106.1 (d d, J = 22.0, 28.0 Hz), 104.8.

5-(2,4-difluorophenoxy)-3-(3,4-dihydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19x). Yield, 10 %. Mp 167-168 ºC. Anal. found: C, 51.72; H, 2.44; N, 8.46. $C_{14}H_8F_2N_2O_5$ requires C, 52.18; H, 2.50; N, 8.69%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.40 (1H, s), 9.09 (1H, s), 7.82 (1H, m, J = 5.8, 9.3 Hz), 7.64 (1H, m, J = 3.0, 9.0, 11.3 Hz), 7.28 (1H, m, J = 8.8 Hz), 7.03 (1H, d, J = 2.3 Hz), 6.85 (1H, d d, J = 2.3, 8.6 Hz), 6.76 (1H, d, J = 8.6 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 160.0 (d d, J = 11.0, 246.0 Hz), 153.1, 152.7 (d d, J = 13.0, 251.0 Hz), 147.8, 145.5, 143.7, 134.9 (d d, J = 4.0, 12.0 Hz), 127.4, 124.2 (d, J = 10.5 Hz), 115.6, 112.5 (d d, J = 3.5, 23.5 Hz), 109.8, 106.9, 106.0 (d d, 22.0, 28.0 Hz).

5-(4-chlorophenoxy)-3-(3,4-dihydroxyphenyl)-1,3,4-oxadiazol-2(*3H*)-one, (19y). Yield, 11 %. Mp 167-168 ºC. Anal. found: C, 52.53; H, 2.76; N, 8.67. $C_{14}H_9ClN_2O_5$ requires C, 52.43; H, 2.83; N, 8.74%. ^{1}H NMR (400MHz, DMSO-d_6) δ, 9.18 (2H, m br), 7.58 (4H, m), 7.07 (1H, d, J = 2.7 Hz), 6.88 (1H, d d, J = 2.7, 8.6 Hz), 6.77 (1H, d, J = 8.6 Hz). ^{13}C NMR (100 MHz, DMSO-d_6) δ, 153.2, 150.2, 147.9, 145.5, 143.6, 130.8, 130, 127.6, 121.8, 115.5, 109.7, 106.8.