Journal of the Serbian Chemical Society
JSCS@tmf.bg.ac.rs • www.shd.org.rs/JSCS
J. Serb. Chem. Soc. 77 (1) S4–S9 (2012) *Supplementary material*

SUPPLEMENTARY MATERIAL TO

New oxadiazole derivatives of isonicotinohydrazide in the search for antimicrobial agents: Synthesis and *in vitro* evaluation

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J. Serb. Chem. Soc. 77 (1) (2012) 9–16

ANALYTICAL AND SPECTRAL DATA OF THE SYNTHESIZED COMPOUNDS

(E)-N'-*(2-Methoxybenzylidene)isonicotinohydrazide (**1a**)*. Anal. Calcd. for $C_{14}H_{13}N_3O_2$: C, 65.87; H, 5.13; N, 16.46 %. Found: C, 65.74; H, 5.18; N, 16.54 %; IR (KBr, cm^{-1}): 3261, 2926, 2865, 2838, 1674, 1652, 1561, 1116, 1064; ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 12.05 (1H, *s*, –NH–N=), 8.82 (2H, *d*, *J* = = 4.7 Hz, pyridine), 8.74 (1H, *s*, –N=C–H), 7.88 (2H, *d*, *J* = 4.7 Hz, pyridine), 7.82 (2H, *d*, *J* = 9.2 Hz, benzylidene), 7.40 (2H, *d*, *J* = 8.9, benzylidene), 3.86 (3H, *s*, O–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 163.45, 160.61, 149.81, 143.37, 139.24, 133.58, 131.74, 123.69, 121.31, 117.83, 113.77, 55.44.

(E)-N'-*3-((Dimethylamino)methyl)-2-methoxybenzylidene)isonicotinohydrazide (**2a**)*. Anal. Calcd. for $C_{17}H_{20}N_4O_2$: C, 65.37; H, 6.45; N, 17.94 %. Found: C, 65.43; H, 6.44; N, 17.89 %; IR (KBr, cm^{-1}): 3258, 2952, 2858, 2840, 1668, 1654, 1545, 1121, 1072; ^{1}H-NMR (300 MHz, DMSO-d_6, δ / ppm): 11.92 (1H, *s*, –NH–N=), 8.74 (2H, *d*, *J* = 4.2 Hz, pyridine), 8.44 (1H, *s*, –N=C–H), 7.85 (2H, *d*, *J* = 3.9 Hz, pyridine), 7.54 (2H, *d*, *J* = 7.5 Hz, benzylidene), 7.19 (1H, *m*, *J* = 7.5 Hz, benzylidene,), 3.84 (3H, *s*, O–CH_3), 3.32 (2H, *s*, Ar–CH_2–N), 0.98 (6H, *t*, 2CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 163.59, 160.71, 149.37, 143.45, 139.41, 133.52, 129.82, 122.64, 119.14, 117.38, 113.15, 55.61, 45.57. ESI-MS (*m*/*z*) = 297 (M+1).

*1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)-1,3,4--oxadiazol-3(2*H*)-yl) ethanone (**3a**)*. Anal. Calcd. for $C_{19}H_{22}N_4O_3$: C, 64.39; H, 6.26; N, 15.81 %. Found: C, 64.35; H, 6.28; N, 15.83 5; IR (KBr, cm^{-1}): 2983,

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2861, 2842, 1673, 1565, 1185, 1059; ^{1}H-NMR (300 MHz, DMSO-d_6, δ / ppm): 8.94 (2H, *d*, *J* = 4.6 Hz, pyridine), 8.34 (2H, *d*, *J* = 4.2 Hz, pyridine), 7.35 (2H, *d*, *J* = 3.7 Hz, phenyl), 6.69 (1H, *m*, phenyl), 5.55 (1H, *s*, oxadiazole), 3.69 (3H, *s*, O–CH_3), 3.47 (2H, *s*, Ar–CH_2–N), 2.18 (6H, *s*, N–2CH_3), 1.13 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 168.75, 154.88, 154.29, 149.53, 137.91, 126.37, 125.54, 123.91, 119.71, 118.63, 65.75, 55.26, 54.63, 45.12, 28.46; ESI-MS (*m*/z) = 355 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)benzenamine (**4a**)*. Anal. Calcd. for $C_{25}H_{27}N_5O_2$: C, 69.91; H, 6.34; N, 16.31 %. Found: C, 69.83; H, 6.35; N, 16.38 %; IR (KBr, cm^{-1}): 2955, 2863, 2841, 1678, 1571, 1182, 1079; ^{1}H-NMR (300 MHz, DMSO-d_6, δ / ppm): 8.98 (2H, *d*, *J* = 4.8 Hz, pyridine), 8.19 (2H, *d*, *J* = = 4.2 Hz, pyridine), 7.35–7.18 (8H, *m*, phenyl), 5.69 (1H, *s*, oxadiazole), 3.74 (3H, *s*, O–CH_3), 3.67 (2H, *s*, Ar–CH_2–N), 2.32 (6H, *s*, N–2CH_3), 1.13 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.75, 155.48, 152.17, 149.17, 139.82, 137.15, 129.77, 127.74, 125.18, 124.28, 122.19, 119.75, 117.66, 68.53, 57.63, 54.73, 47.12, 18.46; ESI-MS (*m*/z) = 431 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)-2-fluorobenzenamine (**4b**)*. Anal. Calcd. for $C_{25}H_{26}FN_5O_2$: C, 67.10; H, 5.86; N, 4.25 %. Found: C, 66.92; H, 5.95; N, 4.34 %; IR (KBr, cm^{-1}): 2988, 2864, 2844, 1675, 1557, 1179, 1145, 1097; ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.98 (2H, *d*, *J* = 4.5 Hz, pyridine), 8.75 (2H, *d*, *J* = 4.1 Hz, pyridine), 7.58 (2H, *d*, *J* = 3.7 Hz, phenyl), 7.26 (*d*, 2H, phenyl, *J* = 3.4 Hz), 6.82–6.67 (*m*, 3H, phenyl), 5.54 (*s*, 1H, oxadiazole), 3.84 (3H, *s*, O–CH_3), 3.56 (2H, *s*, Ar–CH_2–N), 2.33 (6H, *s*, N–2CH_3), 1.11 (s, 3H, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.23, 155.87, 154.92, 154.13, 149.18, 137.53, 127.15, 126.19, 125.13, 124.88, 123.12, 121.22, 119.87, 115.38, 64.52, 55.18, 54.58, 45.91, 21.81. ESI-MS (*m*/z) = 449 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)-3-fluorobenzenamine (**4c**)*. Anal. Calcd. for $C_{25}H_{26}FN_5O_2$: C, 67.10; H, 5.86; N, 4.25 %. Found: C, 66.92; H, 5.95; N, 4.34 %; IR (KBr, cm^{-1}): 2975, 2863, 2845, 1679, 1583, 1188, 1139, 1075. ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.92 (2H, *d*, *J* = 4.7 Hz, pyridine), 8.75 (2H, *d*, *J* = 4.1 Hz, pyridine), 7.21 (1H, *m*, phenyl), 7.18–7.10 (3H, *m*, phenyl), 6.88–6.72 (3H, *m*, phenyl), 5.59 (1H, *s*, oxadiazole), 3.71 (3H, *s*, O–CH_3), 3.62 (2H, *s*, Ar–CH_2–N), 2.35 (6H, *s*, N–2CH_3), 1.15 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.37, 155.18, 154.72, 150.56, 149.78, 139.13, 130.14, 126.19, 125.15, 123.17, 119.91, 116.55, 115.18, 111.19, 66.12, 55.15, 54.27, 46.75, 22.75; ESI-MS (*m*/z) = 449 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)-4-fluorobenzenamine (**4d**)*. Anal. Calcd.

for $C_{25}H_{26}FN_5O_2$: C, 67.10; H, 5.86; N, 4.25 %. Found: C, 66.92; H, 5.95; N, 4.34 %; IR (KBr, cm^{-1}): 2967, 2861, 2845, 1673, 1574, 1188, 1156, 1072. ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.95 (2H, *d*, *J* = 4.6 Hz, pyridine), 8.71 (2H, *d*, *J* = 4.1 Hz, pyridine), 7.45 (2H, *d*, *J* = 3.7 Hz, phenyl), 7.17 (2H, *d*, *J* = = 3.2 Hz, phenyl), 6.85–6.67 (3H, *m*, phenyl), 5.62 (1H, *s*, oxadiazole), 3.88 (3H, *s*, O–CH_3), 3.66 (2H, *s*, Ar–CH_2–N), 2.45 (6H, *s*, N–2CH_3), 1.05 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.18, 161.42, 155.79, 155.17, 149.13, 144.54, 138.89, 126.17, 125.58, 124.72, 123.92, 121.11, 120.27, 116.85, 67.54, 56.15, 55.64, 46.28, 15.27; ESI-MS (*m*/*z*) = 449 (M+1).

(Z)-*2-Chloro*-N-*(1-(2-(3-((dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)-1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)benzenamine (**4e**)*. Anal. Calcd. for $C_{25}H_{26}ClN_5O_2$: C, 64.72; H, 5.65; N, 15.09 %. Found: C, 64.61; H, 5.72; N, 15.13 %; IR (KBr, cm^{-1}): 2983, 2859, 2838, 1669, 1561, 1181, 1018, 788. ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.74 (2H, *d*, *J* = 4.4 Hz, pyridine), 8.71 (2H, *d*, *J* = 4.1, Hz pyridine), 7.83 (2H, *d*, *J* = 3.7 Hz, phenyl), 7.21 (2H, *d*, *J* = = 3.2 Hz, phenyl), 6.72–6.66 (3H, *m*, phenyl), 5.37 (1H, *s*, oxadiazole), 3.81 (3H, *s*, O–CH_3), 3.54 (2H, *s*, Ar–CH_2–N), 2.35 (6H, *s*, N–2CH_3), 1.13 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.25, 155.85, 154.91, 153.88, 149.24, 137.18, 126.25, 125.18, 124.27, 123.94, 121.21, 119.86, 114.18, 64.51, 54.29, 53.92, 46.92, 21.85; ESI-MS (*m*/*z*) = 465 (M+1).

(Z)-*3-Chloro*-N-*(1-(2-(3-((dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)-1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)benzenamine (**4f**)*. Anal. Calcd. for $C_{25}H_{26}ClN_5O_2$: C, 64.72; H, 5.65; N, 15.09 %. Found: C, 64.61; H, 5.72; N, 15.13 %; IR (KBr, cm^{-1}): 2993, 2856, 2843, 1676, 1559, 1185, 1031, 759; ^{1}H-NMR (300 MHz, DMSO-d_6, δ / ppm): 8.88 (2H, *d*, *J* = 4.5 Hz, pyridine), 8.73 (2H, *d*, *J* = 4.1 Hz, pyridine), 7.28 (7H, *m*, phenyl), 5.45 (1H, *s*, oxadiazole), 3.75 (3H, *s*, O–CH_3), 3.65 (2H, *s*, Ar–CH_2–N), 2.35 (6H, *s*, N–2CH_3), 1.18 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.31, 155.25, 154.77, 150.58, 149.72, 138.64, 130.19, 126.17, 124.39, 122.26, 119.93, 116.19, 114.74, 111.32, 67.19, 55.44, 54.13, 46.71, 22.77; ESI-MS (*m*/*z*) = 465 (M+1).

(Z)-*4-Chloro*-N-*(1-(2-(3-((dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)-1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)benzenamine (**4g**)*. Anal. Calcd. for $C_{25}H_{26}ClN_5O_2$: C, 64.72; H, 5.65; N, 15.09 %. Found: C, 64.61; H, 5.72; N, 15.13 %; IR (KBr, cm^{-1}): 2991, 2859, 2843, 1673, 1565, 1183, 1018, 755. ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.88 (2H, *d*, *J* = 4.5 Hz, pyridine), 8.37 (2H, *d*, *J* = 4.1, Hz pyridine), 7.86 (2H, *d*, *J* = 3.8 Hz, phenyl), 7.49 (2H, *d*, *J* = = 3.3 Hz, phenyl), 6.77–6.59 (3H, *m*, phenyl), 5.55 (1H, *s*, oxadiazole), 3.79 (3H, *s*, O–CH_3), 3.67 (2H, *s*, Ar–CH_2–N), 2.39 (6H, *s*, N–2CH_3), 1.08 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.35, 155.44, 154.78, 149.69, 147.18, 138.74, 132.33, 130.29, 127.19, 126.55, 124.37, 122.75, 121.63, 119.68, 66.56, 56.59, 55.27, 47.26, 15.88; ESI-MS (*m*/*z*) = 465 (M+1).

(Z)-*2-Bromo*-N-*(1-(2-(3-((dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)-1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)benzenamine (**4h**)*. Anal. Calcd. for $C_{25}H_{26}BrN_5O_2$: C, 59.06; H, 5.15; N, 13.77 %. Found: C, 58.96; H, 5.13; N, 13.89 %; IR (KBr, cm^{-1}): 2977, 2861, 2845, 1679, 1557, 1181, 1069, 589; ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.81 (2H, *d*, *J* = 4.4 Hz, pyridine), 8.77 (2H, *d*, *J* = 3.9 Hz, pyridine), 7.59 (2H, *d*, *J* = 3.6 Hz, phenyl), 7.55 (2H, *d*, *J* = = 3.2 Hz, phenyl), 6.74–6.59 (3H, *m*, phenyl), 5.48 (1H, *s*, oxadiazole), 3.74 (3H, *s*, O–CH_3), 3.66 (2H, *s*, Ar–CH_2–N), 2.35 (6H, *s*, N–2CH_3), 1.18 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.37, 155.38, 154.17, 149.75, 145.73, 135.14, 132.19, 128.19, 127.94, 126.88, 124.11, 119.91, 110.15, 66.72, 56.71, 55.53, 45.52, 21.72; ESI-MS (*m*/*z*) = 509 (M+1).

(Z)-*3-Bromo*-N-*(1-(2-(3-((dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)-1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)benzenamine (**4i**)*. Anal. Calcd. for $C_{25}H_{26}BrN_5O_2$: C, 59.06; H, 5.15; N, 13.77 %. Found: C, 59.11; H, 5.12; N, 13.75 %; IR (KBr, cm^{-1}): 2986, 2863, 2844, 1664, 1589, 1182, 1079, 584; ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.85 (2H, *d*, *J* = 4.6 Hz, pyridine), 8.41 (2H, d, *J* = 4.2 Hz, pyridine), 7.73 (2H, *d*, *J* = 3.7 Hz, phenyl), 7.47 (2H, *d*, *J* = = 3.2 Hz, phenyl), 6.69–6.49 (3H, *m*, phenyl), 5.58 (1H, *s*, oxadiazole), 3.64 (3H, *s*, O–CH_3), 3.59 (2H, *s*, Ar–CH_2–N), 2.33 (6H, *s*, N–2CH_3), 1.15 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.53, 155.51, 154.37, 149.62, 147.34, 137.92, 133.41, 129.53, 127.73, 127.32, 125.16, 124.72, 124.35, 121.72, 119.15, 65.53, 55.69, 54.38, 46.24, 21.34; ESI-MS (*m*/*z*) = 509 (M+1).

(Z)-*4-Bromo*-N-*(1-(2-(3-((dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)-1,3,4-oxadiazol-3(2*H*)-yl)ethylidene) benzenamine (**4j**)*. Anal. Calcd. for $C_{25}H_{26}BrN_5O_2$: C, 59.06; H, 5.15; N, 13.77 %. Found: C, 58.95; H, 5.18; N, 13.85 %; IR (KBr; cm^{-1}): 2972, 2863, 2842, 1675, 1563, 1185, 1069, 839; ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.79 (2H, *d*, *J* = 4.7, Hz pyridine), 8.44 (2H, *d*, *J* = 4.2 Hz, pyridine), 7.77 (2H, *d*, *J* = 3.9 Hz, phenyl), 7.55 (2H, *d*, *J* = = 3.3 Hz, phenyl), 6.71–6.48 (3H, *m*, phenyl), 5.59 (1H, *s*, oxadiazole), 3.71 (3H, *s*, O–CH_3), 3.64 (2H, *s*, Ar–CH_2–N), 2.34 (6H, *s*, N–2CH_3), 1.13 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.45, 155.39, 154.18, 149.55, 147.64, 137.94, 133.38, 127.95, 125.72, 124.12, 121.72, 119.15, 65.29, 56.74, 55.18, 47.38, 15.34; ESI–MS (*m*/*z*) = 509 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H*)-yl)ethylidene)-2-nitrobenzenamine (**4k**)*. Anal. Calcd. for $C_{25}H_{26}N_6O_4$: C, 63.28; H, 5.52; N, 17.71 %. Found: C, 63.11; H, 5.65; N, 17.75 %; IR (KBr, cm^{-1}): 2987, 2859, 2842, 1676, 1569, 1547, 1357, 1189, 1059; ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.91 (2H, *d*, *J* = 4.4 Hz, pyridine), 8.19 (2H, *d*, *J* = 4.1 Hz, pyridine), 7.93 (2H, *d*, *J* = 3.6 Hz, phenyl), 7.55 (2H, *d*, *J* = 3.2 Hz, phenyl), 6.82–6.75 (3H, *m*, phenyl), 5.51 (1H, *s*, oxadiazole), 3.66 (3H, *s*, O–CH_3), 3.59 (2H, *s*, Ar–CH_2–N), 2.31 (6H, *s*, N–2CH_3), 1.08 (3H, *s*,

N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.74, 155.19, 154.27, 149.37, 145.72, 141.18, 138.44, 135.53, 127.88, 125.72, 124.93, 123.15, 122.58, 121.18, 119.88, 65.71, 56.53, 55.34, 47.19, 21.13; ESI-MS (*m*/*z*) = 476 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H)-yl)ethylidene)-3-nitrobenzenamine (***4l***). Anal. Calcd. for $C_{25}H_{26}N_6O_4$: C, 63.28; H, 5.52; N, 17.71 %. Found: C, 63.25; H, 5.51; N, 17.75 %; IR (KBr, cm^{-1}): 2979, 2855, 2843, 1677, 1564, 1545, 1355, 1184, 1056; ^{1}H--NMR (300 MHz, DMSO-d_6, δ / ppm): 8.83 (2H, *d*, *J* = 4.4 Hz, pyridine), 8.21 (2H, *d*, *J* = 4.1 Hz, pyridine), 7.93 (2H, *d*, *J* = 3.6 Hz, phenyl), 7.59 (2H, *d*, *J* = = 3.1 Hz, phenyl), 6.84–6.79 (3H, *m*, phenyl), 5.49 (1H, *s*, oxadiazole), 3.72 (3H, *s*, O–CH_3), 3.52 (2H, *s*, Ar–CH_2–N), 2.26 (6H, *s*, N–2CH_3), 1.19 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.72, 155.79, 154.13, 149.75, 146.77, 138.44, 127.92, 125.72, 124.93, 123.12, 122.72, 121.19, 119.88, 66.24, 56.57, 55.19, 47.11, 15.13; ESI-MS (*m*/*z*) = 476 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H)-yl)ethylidene)-4-nitrobenzenamine (***4m***). Anal. Calcd. for $C_{25}H_{26}N_6O_4$: C, 63.28; H, 5.52; N, 17.71 %. Found: C, 63.11; H, 5.65; N, 17.75 %; IR (KBr, cm^{-1}): 2985, 2858, 2839, 1673, 1564, 1184, 1055; ^{1}H-NMR (300 MHz, DMSO-d_6, δ / ppm): 8.95 (2H, *d*, *J* = 4.7 Hz, pyridine), 8.25 (2H, *d*, *J* = = 4.2 Hz, pyridine), 7.95 (2H, *d*, *J* = 3.8 Hz, phenyl), 7.55 (2H, *d*, *J* = 3.3 Hz, phenyl), 6.83–6.67 (3H, *m*, phenyl), 5.59 (1H, *s*, oxadiazole), 3.75 (3H, *s*, O–CH_3), 3.62 (2H, *s*, Ar–CH_2–N), 2.35 (6H, *s*, N–2CH_3), 1.13 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.77, 155.84, 154.25, 149.38, 146.75, 137.94, 128.12, 125.57, 124.91, 123.17, 122.18, 121.37, 119.81, 65.92, 56.52, 55.29, 47.24, 15.87; ESI-MS (*m*/*z*) = 476 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H)-yl)ethylidene)-2-methoxybenzenamine (***4n***). Anal. Calcd. for $C_{26}H_{29}N_5O_3$: C, 67.95; H, 6.36; N, 15.24 %. Found: C, 67.87; H, 6.34; N, 15.34 %; IR (KBr, cm^{-1}): 2977, 2858, 2843, 1679, 1561, 1174, 1076; ^{1}H-NMR (300 MHz, DMSO-d_6, δ / ppm): 8.77 (2H, *d*, *J* = 4.4 Hz, pyridine), 8.34 (2H, *d*, *J* = 4.1 Hz, pyridine), 7.69 (2H, *d*, *J* = 3.9 Hz, phenyl), 7.45 (2H, *d*, *J* = 3.2 Hz, phenyl), 6.66–6.51 (3H, *m*, phenyl), 5.73 (1H, *s*, oxadiazole), 3.77 (6H, *s*, O–2CH_3), 3.62 (2H, *s*, Ar–CH_2–N), 2.49 (6H, *s*, N–2CH_3), 1.09 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.39, 155.17, 154.29, 149.21, 144.53, 140.77, 137.87, 135.91, 127.88, 126.29, 124.27, 123.27, 122.32, 120.74, 119.31, 65.42, 55.21, 54.37, 45.49, 15.55; ESI-MS (*m*/*z*) = 460 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H)-yl)ethylidene)-3-methoxybenzenamine (***4o***). Anal. Calcd. for $C_{26}H_{29}N_5O_3$: C, 67.95; H, 6.36; N, 15.24 %. Found: C, 67.98; H, 6.27; N, 15.30 %; IR (KBr, cm^{-1}): 2975, 2861, 2839, 1674, 1568, 1188, 1072; ^{1}H-NMR (300 MHz, DMSO-d_6, δ / ppm): 8.74 (2H, *d*, *J* = 4.7 Hz, pyridine), 8.15 (2H, *d*,

J = 4.3 Hz, pyridine), 7.76 (2H, *d*, *J* = 3.5 Hz, phenyl), 7.36 (2H, *d*, *J* = 3.1 Hz, phenyl), 6.63–6.48 (3H, *m*, phenyl), 5.63 (1H, *s*, oxadiazole), 3.75 (6H, *s*, O–2CH_3), 3.68 (2H, *s*, Ar–CH_2–N), 2.44 (6H, *s*, N–2CH_3), 1.11 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.52, 155.27, 154.37, 149.41, 148.87, 137.58, 131.55, 127.52, 126.89, 125.12, 124.43, 123.38, 120.63, 119.35, 115.55, 65.42, 55.27, 54.39, 46.77, 21.48. ESI-MS (*m*/*z*) = 460 (M+1).

(Z)-N-*(1-(2-(3-((Dimethylamino)methyl)-2-methoxyphenyl)-5-(pyridin-4-yl)--1,3,4-oxadiazol-3(2*H*)-yl) ethylidene)-4-methoxybenzenamine (**4p**)*. Anal. Calcd. for $C_{26}H_{29}N_5O_3$: C, 67.95; H, 6.36; N, 15.24 %. Found: C, 67.83; H, 6.35; N, 15.37 %; IR (KBr, cm^{-1}): 2976, 2868, 2847, 1669, 1568, 1177, 1083; ^{1}H-NMR (300 MHz, DMSO-d_6, δ / ppm): 8.87 (2H, *d*, *J* = 4.5 Hz, pyridine), 8.28 (2H, *d*, *J* = 4.1 Hz, pyridine), 7.83 (2H, *d*, *J* = 3.8 Hz, phenyl), 7.36 (2H, *d*, *J* = 3.2 Hz, phenyl), 6.59–6.45 (3H, *m*, phenyl), 5.65 (1H, s, oxadiazole), 3.72 (6H, *s*, O–2CH_3), 3.69 (2H, *s*, Ar–CH_2–N), 2.49 (6H, *s*, N–2CH_3), 1.21 (3H, *s*, N=C–CH_3); ^{13}C-NMR (DMSO-d_6, δ / ppm): 164.75, 159.23, 155.17, 154.29, 149.27, 140.37, 137.93, 127.24, 126.19, 124.27, 123.17, 120.92, 119.33, 115.55, 55.42, 54.18, 46.24, 15.83; ESI-MS (*m*/*z*) = 460 (M+1).