



SUPPLEMENTARY MATERIAL TO
**Microwave-assisted synthesis of new pyrazole derivatives
bearing the 1,2,3-triazole scaffold as potential antimicrobial
agents**

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SPECTRAL AND ANALYTICAL DATA OF THE SYNTHESIZED COMPOUNDS

(E)-3-(3-(4-Chlorophenyl)-1-phenyl-1H-pyrazol-4-yl)-1-(2-hydroxy-4-(prop-2-yn-1-yloxy)phenyl)prop-2-en-1-one (**5a**). Pale yellow powder. Anal. Calcd. for $C_{27}H_{19}ClN_2O_3$: C, 71.29; H, 4.21; N, 6.16 %. Found: C, 71.32; H, 4.25; N, 6.19 %; IR (KBr, cm^{-1}): 3271 (OH), 1631 (C=O); 1H -NMR (400 MHz, $CDCl_3$, δ / ppm): 2.58 (1H, *t*, $J = 2.26$ Hz, $\equiv C-H$), 4.73 (2H, *d*, $J = 2.26$ Hz, OCH_2), 6.51–6.56 (2H, *m*, Ar-H), 7.34–7.41 (2H, *m*, Ar-H), 7.47–7.53 (4H, *m*, Ar-H), 7.65 (2H, *d*, $J = 8.30$ Hz, Ar-H), 7.71 (1H, *d*, $J = 8.87$ Hz, Ar-H), 7.79 (2H, *d*, $J = 7.74$ Hz, Ar-H), 7.89 (1H, *d*, $J = 15.48$ Hz, β -H), 8.36 (1H, *s*, pyrazole-H), 13.42 (1H, *s*, OH); ^{13}C -NMR (100 MHz, $CDCl_3$, δ / ppm): 56.3, 76.7, 102.6, 108.3, 114.9, 118.6, 119.8, 120.2, 127.3, 127.8, 129.4, 130.0, 130.4, 131.1, 131.4, 135.1, 135.3, 139.6, 153.0, 164.2, 166.7, 191.9; (+)-ESI MS (m/z): 455 ($[M+H]^+$, 100 %).

(E)-1-(2-Hydroxy-4-(prop-2-yn-1-yloxy)phenyl)-3-(1-phenyl-3-p-tolyl-1H-pyrazol-4-yl)prop-2-en-1-one (**5b**). Yellow solid. Anal. Calcd. for $C_{28}H_{22}N_2O_3$: C, 77.40; H, 5.10; N, 6.45 %. Found: C, 77.42; H, 5.13; N, 6.49 %; IR (KBr, cm^{-1}): 3264 (OH), 1634 (C=O); 1H -NMR (400 MHz, $CDCl_3$, δ / ppm): 2.43 (3H, *s*, Ar- CH_3), 2.57 (1H, *t*, $J = 2.45$ Hz, $\equiv C-H$), 4.72 (2H, *d*, $J = 2.26$ Hz, OCH_2), 6.49–6.55 (2H, *m*, Ar-H), 7.30–7.40 (4H, *m*, Ar-H), 7.49 (2H, *t*, $J = 7.55$ Hz, Ar-H), 7.59 (2H, *d*, $J = 8.12$ Hz, Ar-H), 7.70 (1H, *d*, $J = 9.06$ Hz, Ar-H), 7.79 (2H, *d*, $J = 7.55$ Hz, Ar-H), 7.95 (1H, *d*, $J = 15.48$ Hz, β -H), 8.35 (1H, *s*, pyrazole-H), 13.48 (1H, *s*, OH); ^{13}C -NMR (100 MHz, $DMSO-d_6$, δ / ppm): 20.8, 55.9, 78.4, 78.8, 102.0, 107.7, 114.1, 117.6, 118.6, 120.0, 127.1, 128.2, 128.9, 129.4, 129.6,

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131.9, 134.6, 138.2, 138.8, 153.1, 163.6, 165.3, 191.4; (+)-ESI MS (m/z): 435 ($[M+H]^+$, 100 %).

(E)-3-(3-(4-Chlorophenyl)-1-phenyl-1H-pyrazol-4-yl)-1-(4-((1-(2-chlorophenyl)-1H-1,2,3-triazol-4-yl)methoxy)-2-hydroxyphenyl)prop-2-en-1-one (**6a**). Pale yellow solid. Anal. Calcd. for $C_{33}H_{23}Cl_2N_5O_3$: C, 65.14; H, 3.81; N, 11.51 %. Found: C, 65.18; H, 3.84; N, 11.55 %; IR (KBr, cm^{-1}): 3151 (OH), 3063 (C=C-H), 1633 (C=O); 1H -NMR (400 MHz, DMSO- d_6 , δ / ppm): 5.38 (2H, *s*, OCH₂), 6.72–6.76 (2H, *m*, Ar-H), 7.43 (1H, *t*, $J = 7.36$ Hz, Ar-H), 7.58–7.66 (6H, *m*, Ar-H), 7.72 (3H, *d*, $J = 8.87$ Hz, Ar-H), 7.78–7.81 (2H, *m*, Ar-H), 7.95 (3H, *t*, $J = 7.74$ Hz, Ar-H), 8.17 (1H, *d*, $J = 8.68$ Hz, Ar-H), 8.76 (1H, *s*, triazole-H), 9.48 (1H, *s*, pyrazole-H), 13.46 (1H, *s*, OH); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 60.4, 101.8, 108.0, 112.3, 114.7, 118.3, 119.8, 122.2, 124.9, 126.2, 126.9, 127.8, 128.3, 129.4, 129.9, 130.5, 131.1, 131.6, 133.5, 134.8, 135.6, 140.2, 141.6, 151.4, 153.8, 164.1, 165.3, 191.7; LC-MS (m/z): 608 ($[M+H]^+$, 100 %).

(E)-3-(3-(4-Chlorophenyl)-1-phenyl-1H-pyrazol-4-yl)-1-(2-hydroxy-4-((1-(2-methoxyphenyl)-1H-1,2,3-triazol-4-yl)methoxy)phenyl)prop-2-en-1-one (**6b**). Pale yellow powder. Anal. Calcd. for $C_{34}H_{26}ClN_5O_3$: C, 67.60; H, 4.34; N, 11.59 %. Found: C, 67.63; H, 4.36; N, 11.63 %; IR (KBr, cm^{-1}): 3153 (OH), 3067 (C=C-H), 1638 (C=O); 1H -NMR (400 MHz, DMSO- d_6 , δ / ppm): 3.86 (3H, *s*, OCH₃), 5.35 (2H, *s*, OCH₂), 6.71–6.76 (2H, *m*, Ar-H), 7.15 (1H, *t*, $J = 7.74$ Hz, Ar-H), 7.33 (1H, *d*, $J = 8.30$ Hz, Ar-H), 7.43 (1H, *t*, $J = 7.17$ Hz, Ar-H), 7.52–7.66 (6H, *m*, Ar-H), 7.72 (2H, *d*, $J = 8.49$ Hz, Ar-H), 7.79 (1H, *s*, Ar-H), 7.96 (3H, *t*, $J = 7.55$ Hz, Ar-H), 8.16 (1H, *d*, $J = 9.06$ Hz, Ar-H), 8.64 (1H, *s*, triazole-H), 9.47 (1H, *s*, pyrazole-H), 13.46 (1H, *s*, OH); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 56.8, 60.5, 102.5, 108.6, 113.6, 114.5, 118.5, 119.4, 121.2, 121.6, 126.1, 126.4, 127.7, 129.7, 129.8, 130.4, 130.8, 131.3, 131.6, 132.7, 134.3, 134.7, 139.4, 142.4, 152.2, 152.4, 165.3, 166.3, 192.1; (+)-ESI MS (m/z): 604 ($[M+H]^+$, 100 %).

(E)-3-(3-(4-Chlorophenyl)-1-phenyl-1H-pyrazol-4-yl)-1-(2-hydroxy-4-((1-(*p*-tolyl)-1H-1,2,3-triazol-4-yl)methoxy)phenyl)prop-2-en-1-one (**6c**). Pale yellow powder. Anal. Calcd. for $C_{34}H_{26}ClN_5O_4$: C, 69.44; H, 4.46; N, 11.91 %. Found: C, 69.46; H, 4.50; N, 11.94 %; IR (KBr, cm^{-1}): 3154 (OH), 3060 (C=C-H), 1635 (C=O); 1H -NMR (400 MHz, DMSO- d_6 , δ / ppm): 2.42 (3H, *s*, Ar-CH₃), 5.36 (2H, *s*, OCH₂), 6.70–6.73 (2H, *m*, Ar-H), 7.33 (2H, *t*, $J = 7.36$ Hz, Ar-H), 7.38–7.62 (6H, *m*, Ar-H), 7.69–7.85 (4H, *m*, Ar-H), 7.90–7.97 (3H, *m*, Ar-H), 8.15 (1H, *d*, $J = 8.87$ Hz, Ar-H), 8.96 (1H, *s*, triazole-H), 9.43 (1H, *s*, pyrazole-H); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 21.1, 62.0, 102.4, 108.4, 114.4, 118.3, 119.2, 120.5, 123.5, 127.9, 129.3, 129.5, 130.1, 130.2, 130.4, 130.6, 130.7, 131.1, 134.1, 134.7, 139.0, 139.3, 143.5, 152.2, 165.1, 165.8, 166.2, 191.9; (+)-ESI MS (m/z): 588 ($[M+H]^+$, 100 %).

(E)-3-(3-(4-Chlorophenyl)-1-phenyl-1H-pyrazol-4-yl)-1-(2-hydroxy-4-((1-(3-(trifluoromethyl)phenyl)-1H-1,2,3-triazol-4-yl)methoxy)phenyl)prop-2-en-1-one (**6d**). A Pale yellow powder. Anal. Calcd. for C₃₄H₂₃ClF₃N₅O₃: C, 63.61; H, 3.61; N, 10.91 %. Found: C, 63.66; H, 3.64; N, 11.94 %; IR (KBr, cm⁻¹): 3160 (OH), 3056 (C=C-H), 1633 (C=O); ¹H-NMR (400 MHz, DMSO-*d*₆, δ / ppm): 5.40 (2H, *s*, OCH₂), 6.75 (1H, *s*, Ar-H), 7.43 (1H, *t*, *J* = 7.17 Hz, Ar-H), 7.58–7.79 (7H, *m*, Ar-H), 7.84–8.01 (6H, *m*, Ar-H), 8.17 (1H, *d*, *J* = 8.68 Hz, Ar-H), 8.28–8.32 (2H, *m*, Ar-H), 9.19 (1H, *s*, triazole-H), 9.48 (1H, *s*, pyrazole-H), 13.48 (1H, *s*, OH); ¹³C-NMR (100 MHz, DMSO-*d*₆, δ / ppm): 61.1, 101.7, 107.5, 113.7, 116.6, 117.5, 118.4, 120.3, 123.1, 123.8, 125.1, 128.7, 128.9, 129.4, 129.8, 130.3, 130.5, 131.0, 131.8, 133.3, 133.7, 136.6, 138.5, 143.2, 151.5, 164.2, 165.3, 191.1; (+)-ESI MS (*m/z*): 642 ([M+H]⁺, 100 %).

(E)-1-(4-((1-Benzyl-1H-1,2,3-triazol-4-yl)methoxy)-2-hydroxyphenyl)-3-(3-(4-chlorophenyl)-1-phenyl-1H-pyrazol-4-yl)prop-2-en-1-one (**6e**). Yellow solid. Anal. Calcd. for C₃₄H₂₆ClN₅O₃: C, 69.44; H, 4.46; N, 11.91 %. Found: C, 69.48; H, 4.50; N, 11.94 %; IR (KBr, cm⁻¹): 3151 (OH), 3063 (C=C-H), 1632 (C=O); ¹H-NMR (400 MHz, DMSO-*d*₆, δ / ppm): 5.26 (2H, *s*, NCH₂), 5.63 (2H, *s*, OCH₂), 6.67 (2H, *s*, Ar-H), 7.32–7.45 (6H, *m*, Ar-H), 7.57–7.78 (7H, *m*, Ar-H), 7.92–7.99 (3H, *m*, Ar-H), 8.14 (1H, *d*, *J* = 8.68 Hz, Ar-H), 8.33 (1H, *s*, triazole-H), 9.47 (1H, *s*, pyrazole-H), 13.45 (1H, *s*, OH); ¹³C-NMR (100 MHz, DMSO-*d*₆, δ / ppm): 52.7, 61.3, 101.6, 107.7, 113.6, 117.5, 118.5, 119.9, 124.7, 127.0, 127.7, 128.0, 128.1, 128.6, 128.7, 129.3, 129.5, 131.7, 134.3, 135.6, 138.2, 138.7, 142.0, 153.0, 164.3, 165.3, 191.2; (+)-ESI MS (*m/z*): 588 ([M+H]⁺, 100 %).

(E)-1-(4-((1-(2-Chlorophenyl)-1H-1,2,3-triazol-4-yl)methoxy)-2-hydroxyphenyl)-3-(1-phenyl-3-*p*-tolyl-1H-pyrazol-4-yl)prop-2-en-1-one (**6f**). Pale yellow solid. Anal. Calcd. for C₃₄H₂₆ClN₅O₃: C, 69.44; H, 4.46; N, 11.91 %. Found: C, 69.50; H, 4.49; N, 11.95 %; IR (KBr, cm⁻¹): 3151 (OH), 3061 (C=C-H), 1633 (C=O); ¹H-NMR (400 MHz, DMSO-*d*₆, δ / ppm): 2.40 (3H, *s*, Ar-CH₃), 5.38 (2H, *s*, OCH₂), 6.72–6.76 (2H, *m*, Ar-H), 7.37–7.44 (3H, *m*, Ar-H), 7.56–7.66 (6H, *m*, Ar-H), 7.72–7.81 (3H, *m*, Ar-H), 7.92–7.98 (3H, *m*, Ar-H), 8.16 (1H, *d*, *J* = 9.06 Hz, Ar-H), 8.77 (1H, *s*, triazole-H), 9.45 (1H, *s*, pyrazole-H), 13.53 (1H, *s*, OH); ¹³C-NMR (100 MHz, DMSO-*d*₆, δ / ppm): 20.5, 60.9, 101.5, 107.5, 113.6, 117.4, 118.2, 119.7, 126.7, 126.8, 127.9, 128.0, 128.1, 128.5, 128.6, 129.1, 129.3, 130.2, 131.4, 131.6, 134.0, 134.2, 137.9, 138.5, 141.7, 152.7, 164.1, 165.3, 191.1; (+)-ESI MS (*m/z*): 588 ([M+H]⁺, 100 %).

(E)-1-(2-Hydroxy-4-((1-(2-methoxyphenyl)-1H-1,2,3-triazol-4-yl)methoxy)phenyl)-3-(1-phenyl-3-*p*-tolyl-1H-pyrazol-4-yl)prop-2-en-1-one (**6g**). Yellow powder. Anal. Calcd. for C₃₅H₂₉N₅O₄: C, 72.03; H, 5.01; N, 12.00 %. Found: C, 72.08; H, 5.04; N, 12.05 %; IR (KBr, cm⁻¹): 3111 (OH), 3059 (C=C-H), 1631 (C=O); ¹H-NMR (400 MHz, DMSO-*d*₆, δ / ppm): 2.40 (3H, *s*, Ar-CH₃), 3.86

(3H, *s*, OCH₃), 5.35 (2H, *s*, OCH₂), 6.71–6.76 (2H, *m*, Ar-H), 7.15 (1H, *t*, *J* = 7.74 Hz, Ar-H), 7.32–7.44 (4H, *m*, Ar-H), 7.52–7.66 (6H, *m*, Ar-H), 7.78 (1H, *d*, *J* = 15.29 Hz, β-H), 7.92–7.99 (3H, *m*, Ar-H), 8.16 (1H, *d*, *J* = 9.06 Hz, Ar-H), 8.65 (1H, *s*, triazole-H), 9.46 (1H, *s*, pyrazole-H), 13.52 (1H, *s*, OH); ¹³C-NMR (100 MHz, DMSO-*d*₆, δ / ppm): 20.2, 55.4, 60.7, 101.2, 107.3, 112.3, 113.2, 117.1, 118.0, 119.4, 120.2, 124.9, 125.1, 126.3, 126.5, 127.7, 128.3, 128.8, 129.1, 130.2, 131.3, 133.9, 137.6, 138.3, 141.1, 151.0, 152.5, 163.9, 165.1, 190.8; (+)-ESI MS (*m/z*): 584 ([M+H]⁺, 100 %).

(*E*)-1-(2-Hydroxy-4-((1-*p*-tolyl-1*H*-1,2,3-triazol-4-yl)methoxy)phenyl)-3-(1-phenyl-3-*p*-tolyl-1*H*-pyrazol-4-yl)prop-2-en-1-one (**6h**). Yellow powder. Anal. Calcd. for C₃₅H₂₉N₅O₃: C, 74.06; H, 5.15; N, 12.34 %. Found: C, 74.09; H, 5.19; N, 12.35 %; IR (KBr, cm⁻¹): 3152 (OH), 3062 (C=C-H), 1636 (C=O); ¹H-NMR (400 MHz, DMSO-*d*₆, δ / ppm): 2.39 (3H, *s*, Ar-CH₃), 2.41 (3H, *s*, Ar-CH₃), 5.36 (2H, *s*, OCH₂), 6.70–6.74 (2H, *m*, Ar-H), 7.37–7.44 (5H, *m*, Ar-H), 7.56–7.63 (4H, *m*, Ar-H), 7.78 (3H, *t*, Ar-H), 7.92–7.98 (3H, *m*, Ar-H), 8.16 (1H, *d*, *J* = 8.87 Hz, Ar-H), 8.95 (1H, *s*, triazole-H), 9.46 (1H, *s*, pyrazole-H), 13.51 (1H, *s*, OH); ¹³C-NMR (100 MHz, DMSO-*d*₆, δ / ppm): 20.3, 60.5, 102.1, 108.1, 112.9, 114.1, 117.5, 118.6, 118.9, 121.4, 124.7, 125.5, 125.9, 127.5, 127.9, 128.7, 129.5, 130.9, 131.6, 133.1, 136.5, 138.6, 141.9, 150.9, 151.7, 164.2, 165.1, 191.4; (+)-ESI MS (*m/z*): 568 ([M+H]⁺, 100 %).

(*E*)-1-(2-Hydroxy-4-((1-(3-(trifluoromethyl)phenyl)-1*H*-1,2,3-triazol-4-yl)methoxy)phenyl)-3-(1-phenyl-3-*p*-tolyl-1*H*-pyrazol-4-yl)prop-2-en-1-one (**6i**). Orange–yellow powder. Anal. Calcd. for C₃₅H₂₆F₃N₅O₃: C, 67.63; H, 4.22; N, 11.27 %. Found: C, 67.68; H, 4.24; N, 11.31 %; IR (KBr, cm⁻¹): 3148 (OH), 3051 (C=C-H), 1621 (C=O); ¹H-NMR (400 MHz, DMSO-*d*₆, δ / ppm): 2.38 (3H, *s*, Ar-CH₃), 5.37 (2H, *s*, OCH₂), 6.70 (2H, *d*, *J* = 8.12 Hz, Ar-H), 7.35–7.43 (3H, *m*, Ar-H), 7.53–7.60 (4H, *m*, Ar-H), 7.75 (1H, *d*, *J* = 15.29 Hz, β-H), 7.85–7.94 (5H, *m*, Ar-H), 8.13 (1H, *d*, *J* = 9.06 Hz, Ar-H), 8.26 (2H, *d*, *J* = 11.51 Hz, Ar-H), 9.13 (1H, *s*, triazole-H), 9.39 (1H, *s*, pyrazole-H), 13.47 (1H, *s*, OH); ¹³C-NMR (100 MHz, DMSO-*d*₆, δ / ppm): 20.3, 60.9, 101.4, 107.3, 113.5, 116.3, 116.4, 117.2, 118.2, 119.5, 122.9, 123.6, 124.9, 126.7, 127.8, 128.4, 129.0, 129.2, 130.9, 131.5, 134.1, 136.4, 137.9, 138.4, 143.0, 152.6, 163.9, 165.1, 191.0; (+)-ESI MS (*m/z*): 622 ([M+H]⁺, 100 %).

(*E*)-1-(4-((1-Benzyl-1*H*-1,2,3-triazol-4-yl)methoxy)-2-hydroxyphenyl)-3-(1-phenyl-3-*p*-tolyl-1*H*-pyrazol-4-yl)prop-2-en-1-one (**6j**). Pale yellow solid. Anal. Calcd. for C₃₅H₂₉N₅O₃: C, 74.06; H, 5.15; N, 12.34 %. Found: C, 74.08; H, 5.19; N, 12.38 %; IR (KBr, cm⁻¹): 3150 (OH), 3059 (C=C-H), 1631 (C=O); ¹H-NMR (400 MHz, DMSO-*d*₆, δ / ppm): 2.38 (3H, *s*, Ar-CH₃), 5.23 (2H, *s*, NCH₂), 5.61 (2H, *s*, OCH₂), 6.64 (2H, *d*, *J* = 7.74 Hz, Ar-H), 7.33–7.42 (8H, *m*, Ar-H), 7.53–7.60 (4H, *m*, Ar-H), 7.74 (1H, *d*, *J* = 15.29 Hz, β-H), 7.90 (3H, *t*, *J* = 8.12 Hz, Ar-H), 8.10 (1H, *d*, *J* = 8.68 Hz, Ar-H), 8.31 (1H, *s*, triazole-H), 9.39 (1H, *s*,

pyrazole-H), 13.47 (1H, *s*, OH); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 20.7, 52.7, 61.2, 101.6, 107.6, 113.7, 117.5, 118.5, 119.8, 127.0, 127.8, 128.0, 128.1, 128.6, 128.7, 129.2, 129.5, 131.8, 134.4, 135.6, 138.1, 138.7, 142.0, 152.9, 164.3, 165.4, 191.2; (+)-ESI MS (m/z): 568 ($[\text{M}+\text{H}]^+$, 100 %).

1-(4-((1-(2-Chlorophenyl)-1H-1,2,3-triazol-4-yl)methoxy)-2-hydroxyphenyl)ethanone (7a). White solid. Yield: 34 %; m. p. 85–88 °C. Anal. Calcd. for $\text{C}_{17}\text{H}_{14}\text{ClN}_3\text{O}_3$: C, 59.40; H, 4.10; N, 12.22 %. Found: C, 59.42; H, 4.14; N, 12.19 %; IR (KBr, cm^{-1}): 3144 (OH), 1641 (C=O); ^1H -NMR (400 MHz, DMSO- d_6 , δ / ppm): 2.58 (3H, *s*, COCH₃), 5.35 (2H, *s*, OCH₂), 6.62–6.73 (2H, *m*, Ar-H), 7.57–7.75 (4H, *m*, Ar-H), 7.95 (1H, *d*, $J = 8.68$ Hz, Ar-H), 9.01 (1H, *s*, triazole-H), 12.67 (1H, *s*, OH); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 26.5, 61.3, 101.4, 107.3, 114.2, 122.0, 123.3, 129.7, 132.1, 132.9, 133.4, 135.5, 143.7, 163.6, 164.8, 203.5; (+)-ESI MS (m/z): 344 ($[\text{M}+\text{H}]^+$, 100 %).

1-(2-Hydroxy-4-((1-(2-methoxyphenyl)-1H-1,2,3-triazol-4-yl)methoxy)phenyl)ethanone (7b). Pale white powder. Yield: 51 %; m. p. 127–130 °C. Anal. Calcd. for $\text{C}_{18}\text{H}_{17}\text{N}_3\text{O}_4$: C, 63.71; H, 5.05; N, 12.38 %. Found: C, 63.68; H, 5.07; N, 12.41 %; IR (KBr, cm^{-1}): 3150 (OH), 1647 (C=O); ^1H -NMR (400 MHz, DMSO- d_6 , δ / ppm): 2.56 (3H, *s*, COCH₃), 3.83 (3H, *s*, OCH₃), 5.36 (2H, *s*, OCH₂), 6.60–6.74 (2H, *m*, Ar-H), 7.18–7.41 (4H, *m*, Ar-H), 8.01 (1H, *d*, $J = 8.81$ Hz, Ar-H), 9.05 (1H, *s*, triazole-H), 12.61 (1H, *s*, OH); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 26.1, 56.2, 61.7, 101.9, 107.1, 114.4, 114.8, 121.7, 122.9, 129.9, 132.4, 133.9, 135.1, 144.1, 154.5, 163.9, 164.3, 203.7; (+)-ESI MS (m/z): 340 ($[\text{M}+\text{H}]^+$, 100 %).

1-(2-Hydroxy-4-((1-p-tolyl)-1H-1,2,3-triazol-4-yl)methoxy)phenyl)ethanone (7c). White powder. Yield: 42 %; m. p. 96–98 °C. Anal. Calcd. for $\text{C}_{18}\text{H}_{17}\text{N}_3\text{O}_3$: C, 66.86; H, 5.30; N, 13.00 %. Found: C, 66.89; H, 5.34; N, 12.97 %; IR (KBr, cm^{-1}): 3147 (OH), 1650 (C=O); ^1H -NMR (400 MHz, DMSO- d_6 , δ / ppm): 2.38 (3H, *s*, CH₃), 2.59 (*s*, 3H, *s*, COCH₃), 5.26 (*s*, 2H, *s*, OCH₂), 6.50–6.60 (2H, *m*, Ar-H), 7.61 (2H, *d*, $J = 8.87$ Hz, Ar-H), 7.80 (1H, *d*, $J = 8.68$ Hz, Ar-H), 7.91 (2H, *d*, $J = 8.87$ Hz, Ar-H), 9.05 (1H, *s*, triazole-H), 12.61 (1H, *s*, OH); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 21.9, 25.7, 61.1, 101.1, 107.9, 113.9, 122.4, 123.1, 128.8, 133.1, 133.3, 134.7, 143.2, 164.0, 164.2, 203.1; (+)-ESI MS (m/z): 324 ($[\text{M}+\text{H}]^+$, 100 %).

1-(2-Hydroxy-4-((1-(3-(trifluoromethyl)phenyl)-1H-1,2,3-triazol-4-yl)methoxy)phenyl)ethanone (7d). Pale white solid. Yield: 48 %; m. p. 103–105 °C. Anal. Calcd. for $\text{C}_{18}\text{H}_{14}\text{F}_3\text{N}_3\text{O}_3$: C, 57.30; H, 3.74; N, 11.14 %. Found: C, 57.32; H, 3.71; N, 11.17 %; IR (KBr, cm^{-1}): 3153 (OH), 1657 (C=O); ^1H -NMR (400 MHz, DMSO- d_6 , δ / ppm): 2.60 (3H, *s*, COCH₃), 5.40 (2H, *s*, OCH₂), 6.68–6.79 (2H, *m*, Ar-H), 7.31–7.43 (2H, *m*, Ar-H), 7.66–7.79 (2H, *m*, Ar-H), 7.97 (2H, *d*, $J = 8.84$ Hz, Ar-H), 9.03 (1H, *s*, triazole-H), 12.63 (1H, *s*, OH); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 26.1, 61.6, 101.7, 107.8, 114.7, 121.6,

127.2, 128.1, 128.9, 133.6, 133.9, 135.4, 135.7, 137.5, 143.9, 164.5, 164.7, 203.7; (+)-ESI MS (m/z): 378 ($[M+H]^+$, 100 %).

1-(4-((1-Benzyl-1H-1,2,3-triazol-5-yl)methoxy)-2-hydroxyphenyl)ethanone (7e). Pale white powder. Yield: 36 %; m. p. 98–100 °C. Anal. Calcd. for $C_{18}H_{17}N_3O_3$: C, 66.86; H, 5.30; N, 13.00 %. Found: C, 66.84; H, 5.33; N, 13.01 %; IR (KBr, cm^{-1}): 3148 (OH), 1649 (C=O); 1H -NMR (400 MHz, DMSO- d_6 , δ / ppm): 2.61 (3H, *s*, COCH₃), 5.39 (2H, *s*, OCH₂), 5.81 (2H, *s*, NCH₂), 6.64–6.75 (2H, *m*, Ar-H), 7.12–7.39 (3H, *m*, Ar-H), 7.78 (2H, *d*, $J = 8.68$ Hz, Ar-H), 7.99 (1H, *d*, $J = 8.87$ Hz, Ar-H), 9.03 (1H, *s*, triazole-H), 12.64 (1H, *s*, OH); ^{13}C -NMR (100 MHz, DMSO- d_6 , δ / ppm): 25.4, 52.7, 61.1, 102.4, 107.7, 115.1, 124.4, 128.6, 129.9, 133.3, 133.7, 135.8, 145.4, 164.5, 164.6, 203.2; (+)-ESI MS (m/z): 324 ($[M+H]^+$, 100 %).