

Analytical Supplementary Data:

3-((5-(2,4-dichlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione (5a):

Molecular formula: C₁₂H₇Cl₂N₃O₃S, Yellow solid, Yield: 78%, Melting point: 210-212 °C; FT-IR (cm⁻¹): 3020 (Ar, C-H), 2927 (CH₂), 1734 (C=O), 1585 (C=N), 1513 (C=C). ¹H-NMR (400 MHz, DMSO-d₆, δ, ppm): 8.78-7.10 (m, Ar-H, 3H), 4.33 (s, CH₂, 2H), 3.26(s, CH₂, 2H); ¹³CNMR (100MHz, DMSO-d₆, δ, ppm): 165.3, 164.2, 163.4, 162.2, 135.0, 129.2, 128.6, 123.3, 122.6, 119.7, 46.3, and 39.0: LC-MS (m/z): calculated for C₁₂H₇Cl₂N₃O₃S is 344.1; found: 344.1 (M+).

3-((5-(4-bromophenyl)-1,3,4-oxadiazol-2-yl) methyl) thiazolidine-2,4-dione (5b):

Molecular formula: C₁₂H₈BrN₃O₃S, Yellow solid, Yield: 87%, Melting point: 185-187 °C; FT-IR (cm⁻¹): 3003 (Ar, CH), 2924 (CH₂), 1735(C=O), 1586 (C=N), 1516 (C=C), 742 (C-Br). ¹H-NMR (400 MHz, DMSO-d₆, δ, ppm): 7.69 -7.11 (m, Ar-H, 4H), 4.41 (s, CH₂, 2H), 3.36(s, CH₂, 2H); ¹³CNMR (100MHz, DMSO-d₆, δ, ppm): 165.9, 159.9, 156.9, 149.8, 129.3, 128.7, 128.6, 123.9, 123.4, 119.7, 45.8 and 34.5: LC-MS (m/z) calculated for C₁₂H₈BrN₃O₃S is 354.1; found: 354.1 (M+).

3-((5-(4-aminophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione (5c):

Molecular formula: C₁₂H₁₀N₄O₃S, Yellow solid, Yield: 82%, Melting point: 198-200 °C; FT-IR (cm⁻¹): 3336 (-NH), 3007(Ar, CH), 2932(CH₂), 1712(C=O), 1591 (C=N), 1512(C=C). ¹H-NMR (400 MHz, DMSO-d₆, δ, ppm):8.78-8.14 (m, Ar-H, 4H), 7.10(s, NH₂, 2H), 4.98 (s, CH₂, 2H), 3.36(s, CH₂, 2H); ¹³CNMR (100MHz, DMSO-d₆, δ, ppm): 166.0, 164.6, 163.3, 161.2, 144.8, 135.0, 129.2, 128.6, 123.3, 119.4, 45.4, and 33.6: LC-MS (m/z): calculated for C₁₂H₁₀N₄O₃S is 290.2; found: 290.2 (M+).

3-((5-(4-hydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione (5d):

Molecular formula: C₁₂H₉N₃O₄S, Yellow solid, Yield: 73%, Melting point: 192-194 °C; FT-IR (cm⁻¹): 3315 (-OH),): 3020 (Ar,C-H), 2927 (CH₂), 1734 (C=O), 1585 (C=N), 1513 (C=C). ¹H-NMR (400 MHz, DMSO-d₆, δ, ppm): 9.41 (s, OH, 1H), 8.19 -7.11 (m, Ar-H, 4H), 4.54 (s, CH₂, 2H), 3.35(s, CH₂, 2H); ¹³CNMR (100MHz, DMSO-d₆, δ, ppm): 165.4, 164.6, 163.4, 161.7, 149.8, 135.0, 129.3, 128.6, 123.4, 119.7, 45.4 and 34.6: LC-MS (m/z): calculated for C₁₂H₉N₃O₄S is 291.2; found: 291.2 (M+).

3-((5-phenyl-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione (5e):

Molecular formula: C₁₂H₉N₃O₃S, Yellow solid, Yield: 69%, Melting point: 215-217°C; FT-IR (cm⁻¹): 3017 (Ar, CH), 2857 (CH₂), 1736 (C=O), 1598 (C=N), 1515 (C=C). ¹H-NMR (400 MHz, DMSO- d₆, δ, ppm): 8.40-7.11(m, Ar-H, 5H)3.35 (s, CH₂, 2H), 3.05(s, CH₂, 2H): ¹³CNMR (100MHz, DMSO-d₆, δ, ppm): 167.0, 165.7, 163.2, 162.1, 131.5, 129.3, 128.6, 124.4, 123.3, 119.7, 45.8, and 35.2: LC-MS (m/z): calculated for C₁₂H₉N₃O₃S is 275.2; found: 275.2 (M+).

3-((5-(4-methoxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione (5f): Molecular formula: C₁₃H₁₁N₃O₄S, Yellow solid, Yield: 86%, Melting point: 178-180°C; FT-IR (cm⁻¹): 3046 (Ar, CH), 2896 (CH₂), 1687(C=O), 1584 (C=N), 1515 (C=C). ¹H-NMR (400 MHz, DMSO-d₆, δ, ppm): 8.16-7.07 (m, Ar-H, 4H), 4.34 (s, CH₂, 2H), 3.83 (s, OCH₃, 3H), 3.32 (s, CH₂, 2H): ¹³CNMR (100MHz, DMSO-d₆, δ, ppm): 168.8, 166.2, 165.1, 163.0, 161.8, 128.5, 124.0, 123.3, 119.7, 53.4, 45.4 and 33.6: LC-MS (m/z): calculated for C₁₃H₁₁N₃O₄S is 305.3; found: 305.3 (M+).

3-((5-(4-chlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione (5g):

Molecular formula: C₁₂H₈ClN₃O₃S, Yellow solid, Yield: 81%, Melting point: 172-174°C; FT-IR (cm⁻¹): 3035 (Ar, CH), 2920 (CH₂), 1731(C=O), 1592 (C=N), 1517(C=C). ¹H-NMR (400 MHz, DMSO-d₆, δ, ppm): 8.16-7.09 (m, Ar-H, 4H), 3.89 (s, CH₂, 2H), 3.38(s, CH₂, 2H): ¹³CNMR (100MHz, DMSO-d₆, δ, ppm): 167.9, 164.7, 162.2, 161.7, 142.3, 135.0, 129.2, 128.6, 123.3, 119.7, 46.7, and 34.4: LC-MS (m/z): calculated for C₁₂H₈ClN₃O₃S is 309.7; found: 309.3 (M+).

3-((5-(2-chloro-4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione (5h):

Molecular formula: C₁₂H₇ClN₄O₅S, Yellow solid, Yield:74%, Melting point: 161-163°C; FT-IR (cm⁻¹): 3046 (Ar, CH), 2924 (CH₂), 1734 (C=O), 1585 (C=N), 1514 (C=C). ¹H-NMR (400 MHz, DMSO-d₆, δ, ppm): 8.19-7.11 (m, Ar-H, 3H), 4.14 (s, CH₂, 2H), 3.36(s, CH₂, 2H): ¹³CNMR (100MHz, DMSO-d₆, δ, ppm): 165.9, 164.3, 161.9, 161.0, 149.8, 135.0, 129.3, 128.6, 123.4, 119.7, 44.8 and 34.5: LC-MS (m/z): calculated for C₁₂H₇ClN₄O₅S is 354.7; found: 354.7 (M+).

3-((5-(4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione(5i):

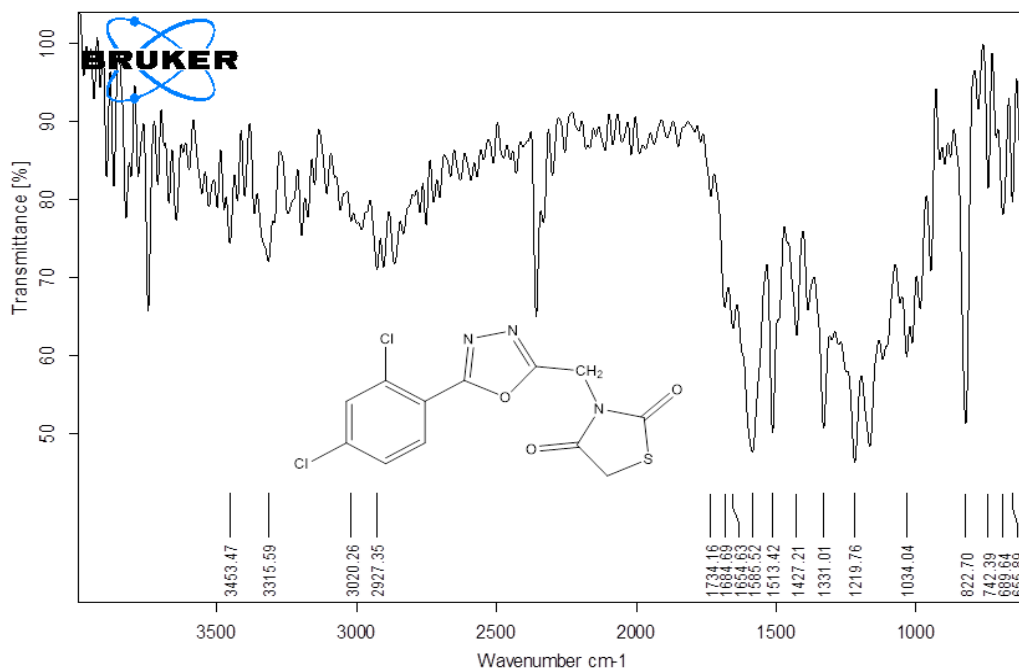
Molecular formula: C₁₂H₈N₄O₅S, Yellow solid, Yield: 81%, Melting point: 153-155°C; FT-IR (cm⁻¹): 3005 (Ar, CH), 2955 (CH₂), 1735 (C=O), 1582 (C=N), 1514 (C=C). ¹H-NMR (400 MHz, DMSO-d₆, δ, ppm): 8.12-7.69 (m, Ar-H, 4H), 3.83 (s, CH₂, 2H), 3.02(s, CH₂, 2H): ¹³CNMR

(100MHz, DMSO-d₆, δ , ppm): 164.9, 164.0, 163.2, 162.1, 149.2, 135.105, 129.3, 128.6, 123.4, 119.7, 44.7, and 34.4: LC-MS (m/z): calculated for C₁₂H₈N₄O₅S is 320.2795; found: 320.2735 (M⁺).

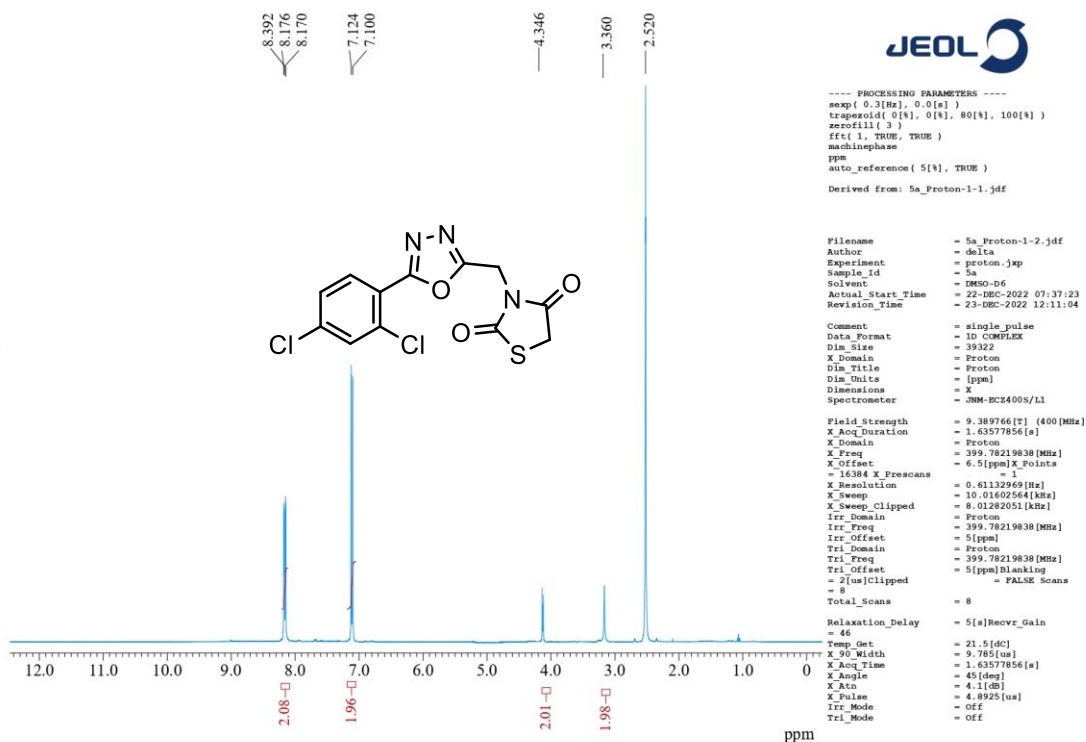
3-((5-(2,4-dihydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione (5j):

Molecular formula: C₁₂H₉N₃O₅S, Yellow solid, Yield: 73%, Melting point: 204-206°C; FT-IR (cm⁻¹): 3326 (-OH), 3005 (Ar, CH), 2955 (CH₂), 1769 (C=O), 1591 (C=N), 1521 (C=C). ¹H-NMR (400 MHz, DMSO-d₆, δ , ppm: 10.14 (s, OH, 2H), 7.92-7.09 (m, Ar-H, 4H), 4.43 (s, CH₂, 2H), 3.32 (s, CH₂, 2H): ¹³CNMR (100MHz, DMSO-d₆, δ , ppm): 165.5, 164.6, 161.4, 149.3, 135.1, 130.4, 128.3, 122.9, 119.6, 45.4 and 34.5: LC-MS (m/z): calculated for C₁₂H₉N₃O₅S is 307.2; found: 307.2 (M⁺).

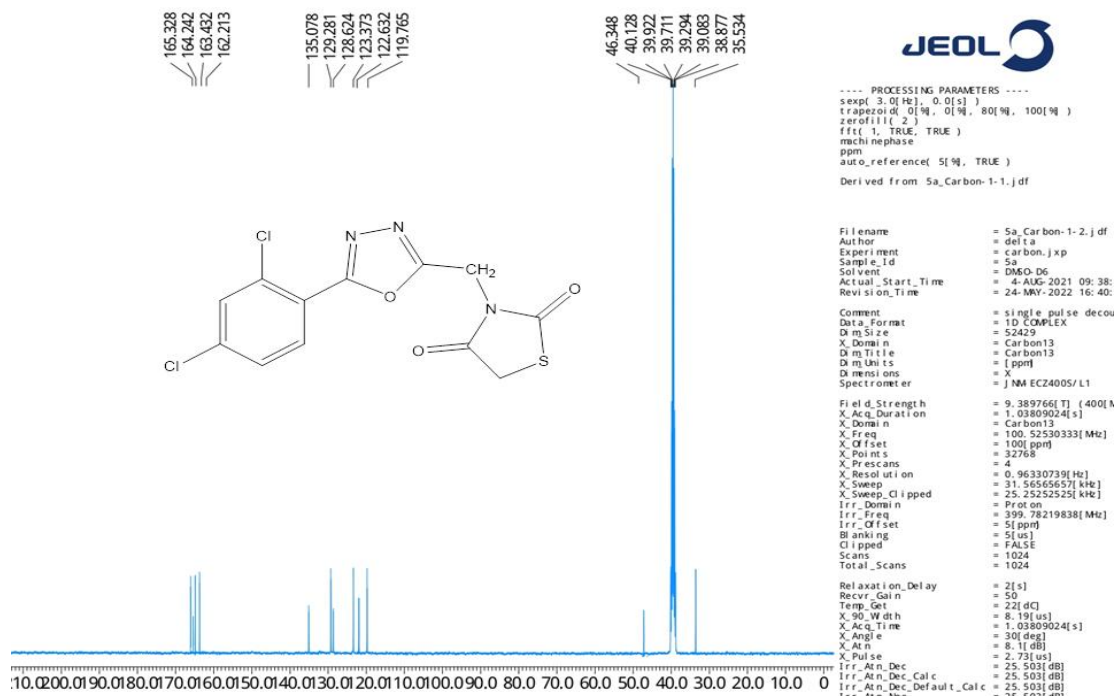
Compound 5a : 3-((5-(2,4-dichlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



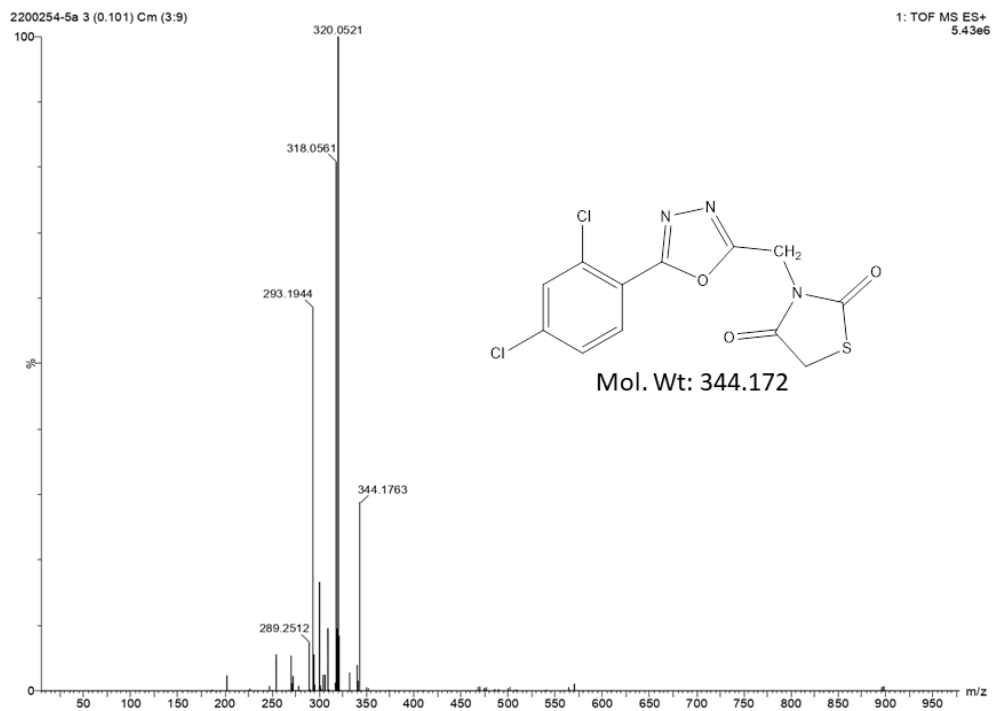
Compound 5a : 3-((5-(2,4-dichlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione:



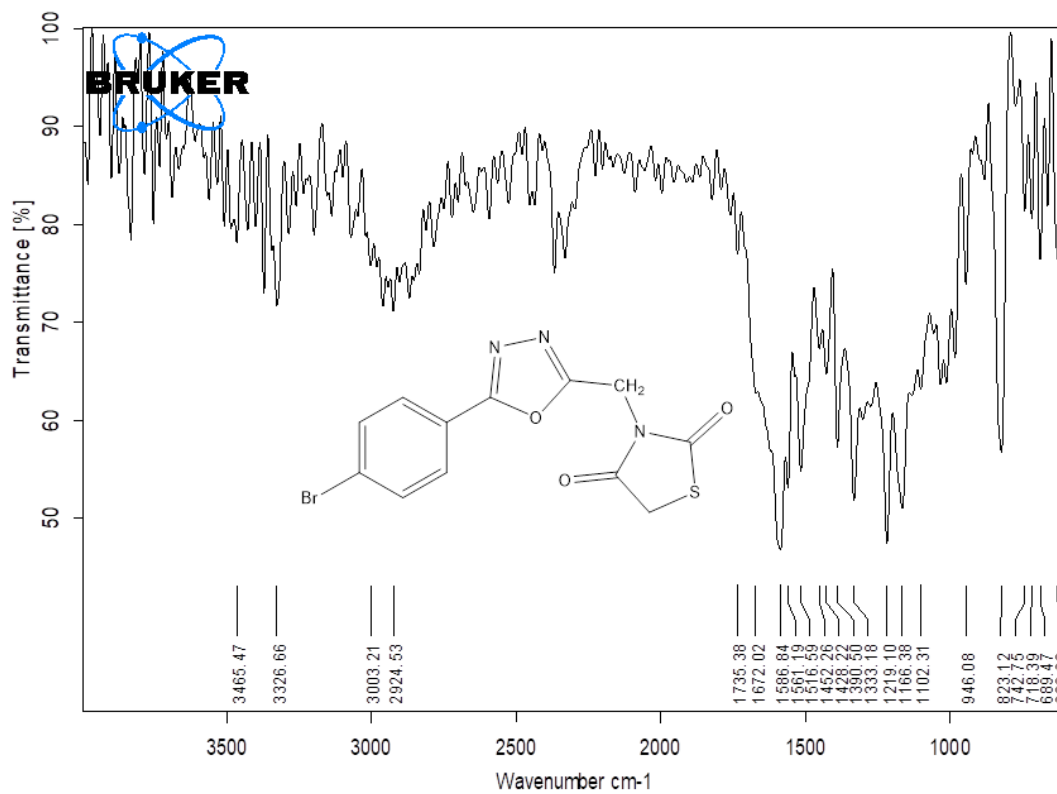
Compound 5a : 3-((5-(2,4-dichlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



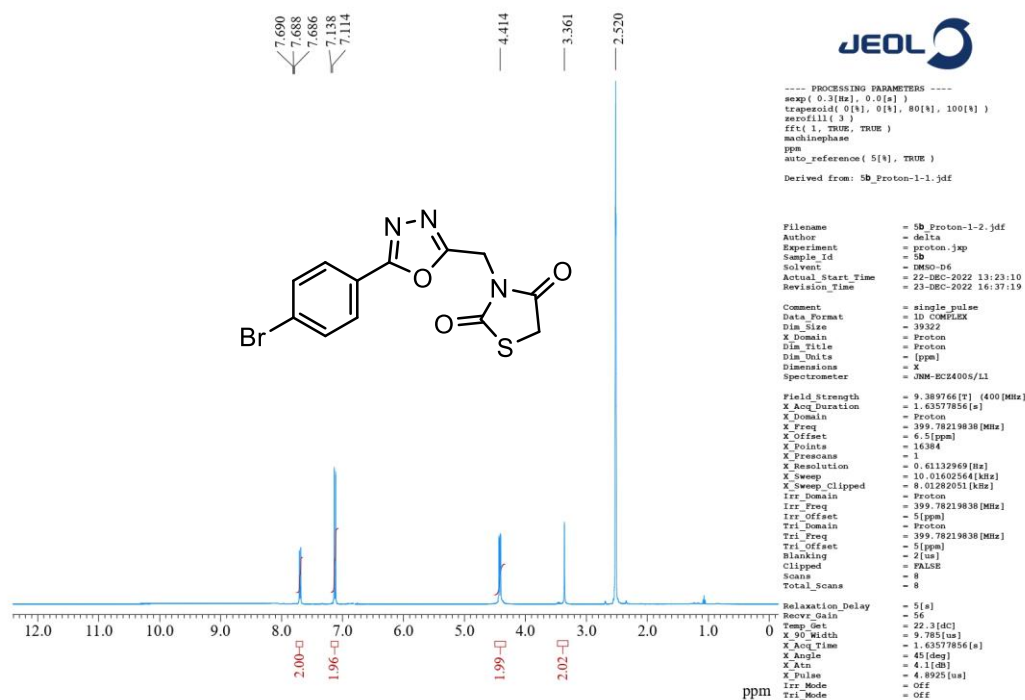
Compound 5a : 3-((5-(2,4-dichlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



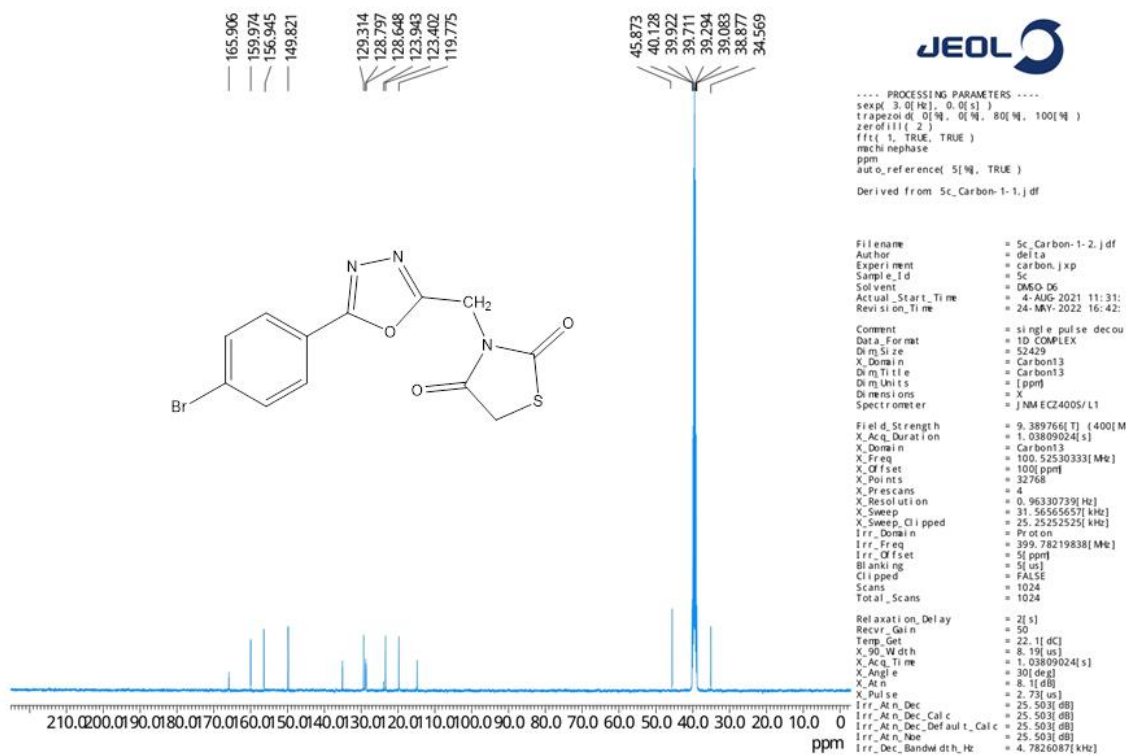
Compound 5b: 3-((5-(4-bromophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



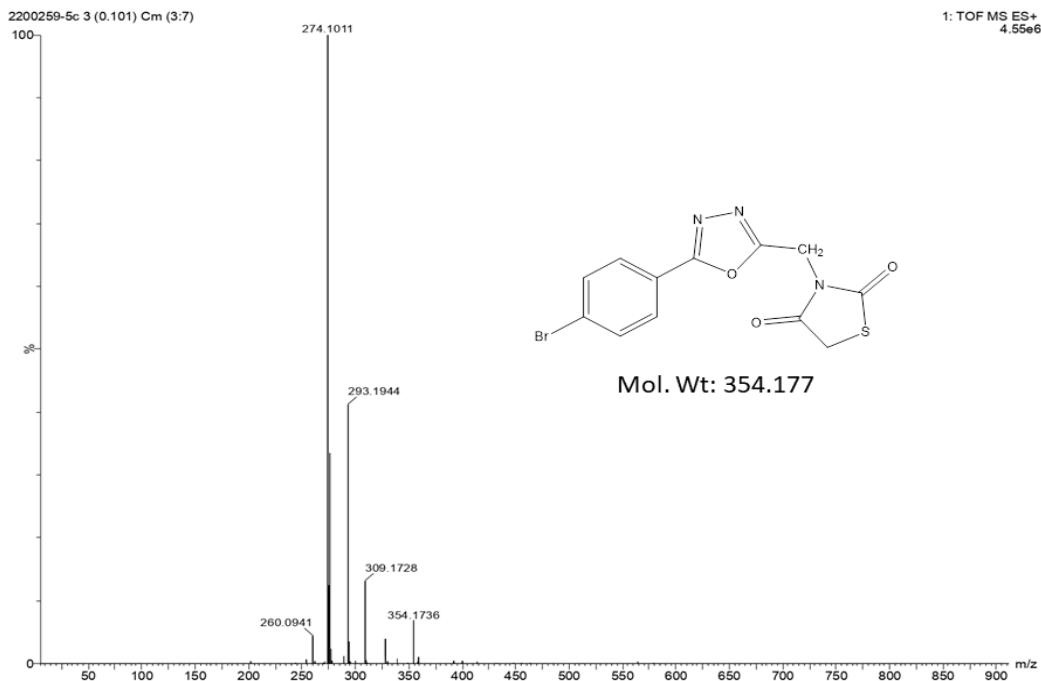
Compound 5b: 3-((5-(4-bromophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



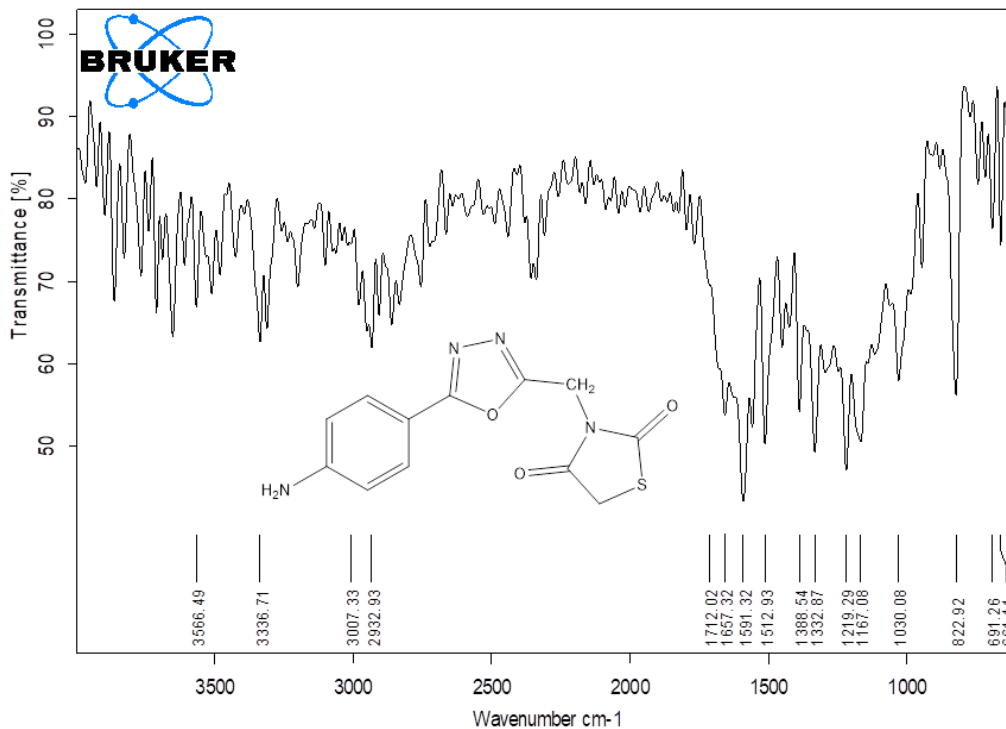
Compound 5b: 3-((5-(4-bromophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



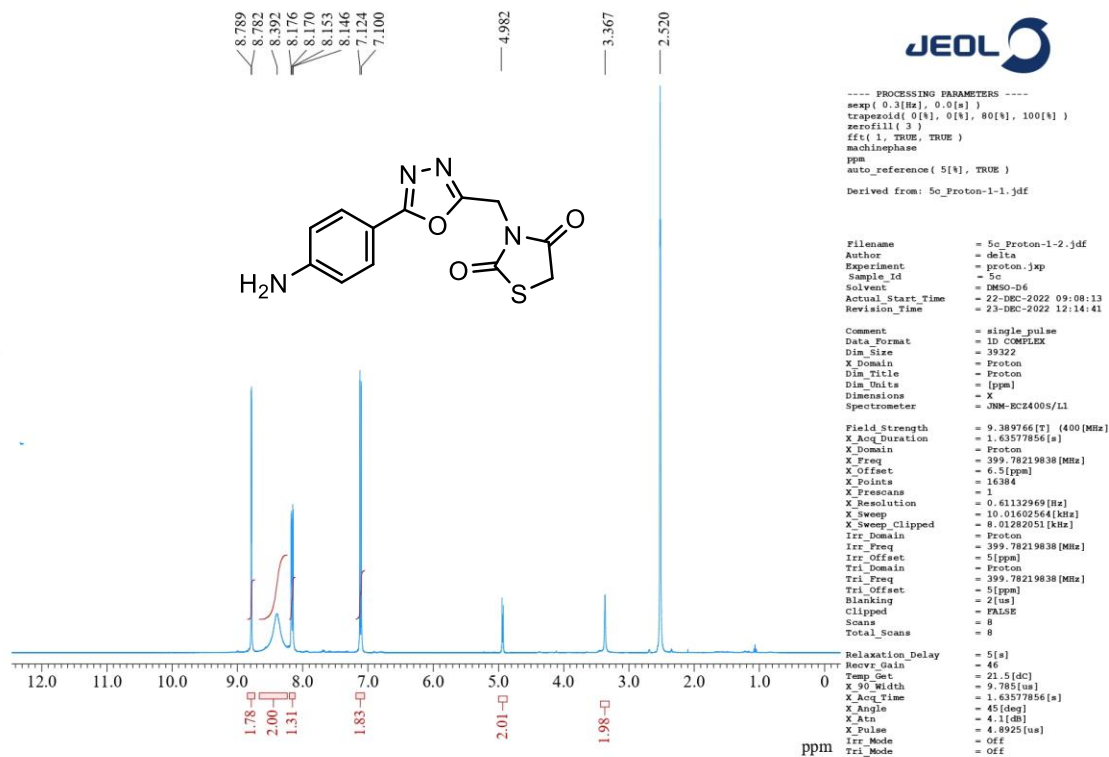
Compound 5b: 3-((5-(4-bromophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



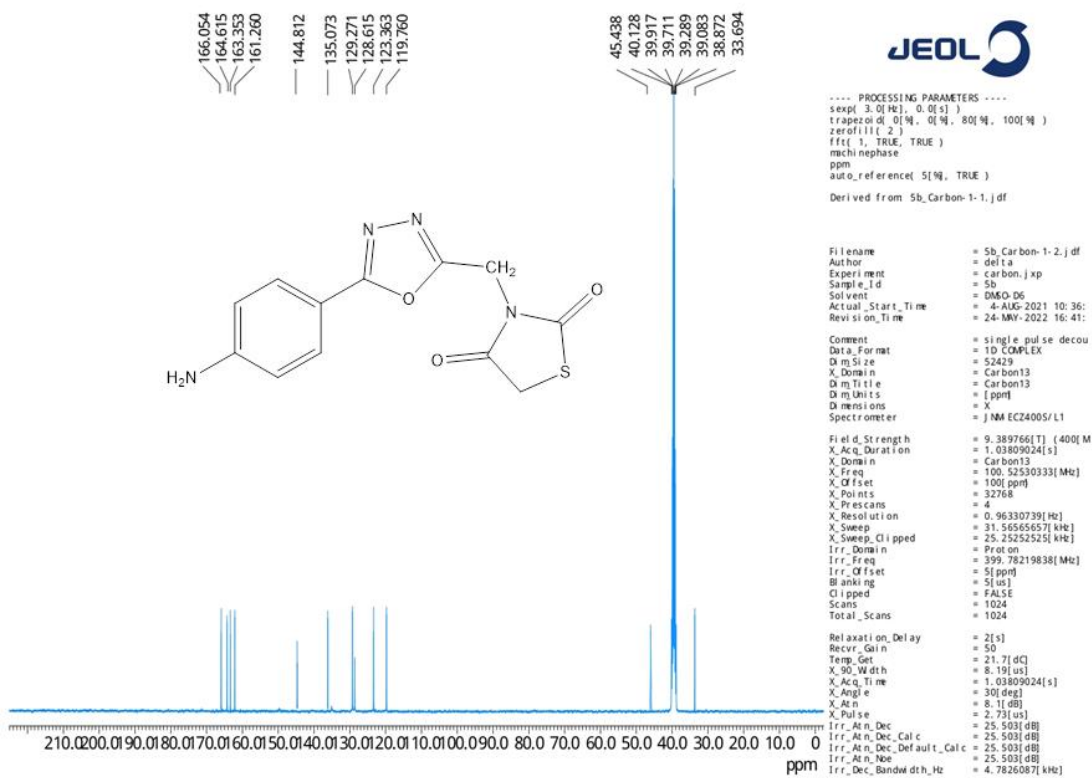
Compound 5c: 3-((5-(4-aminophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



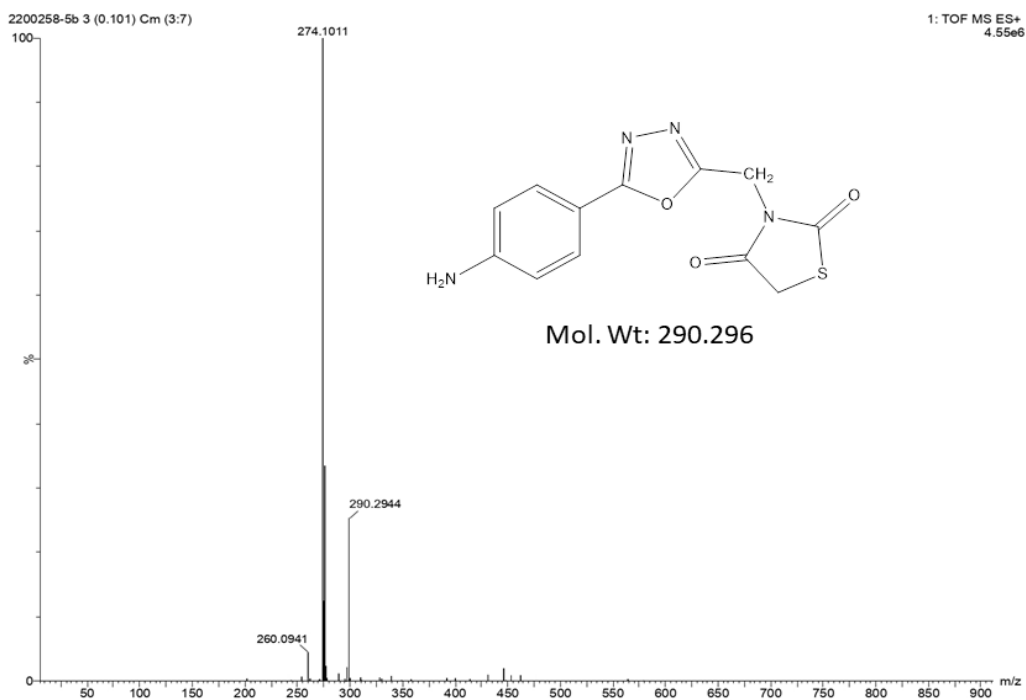
Compound 5c: 3-((5-(4-aminophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



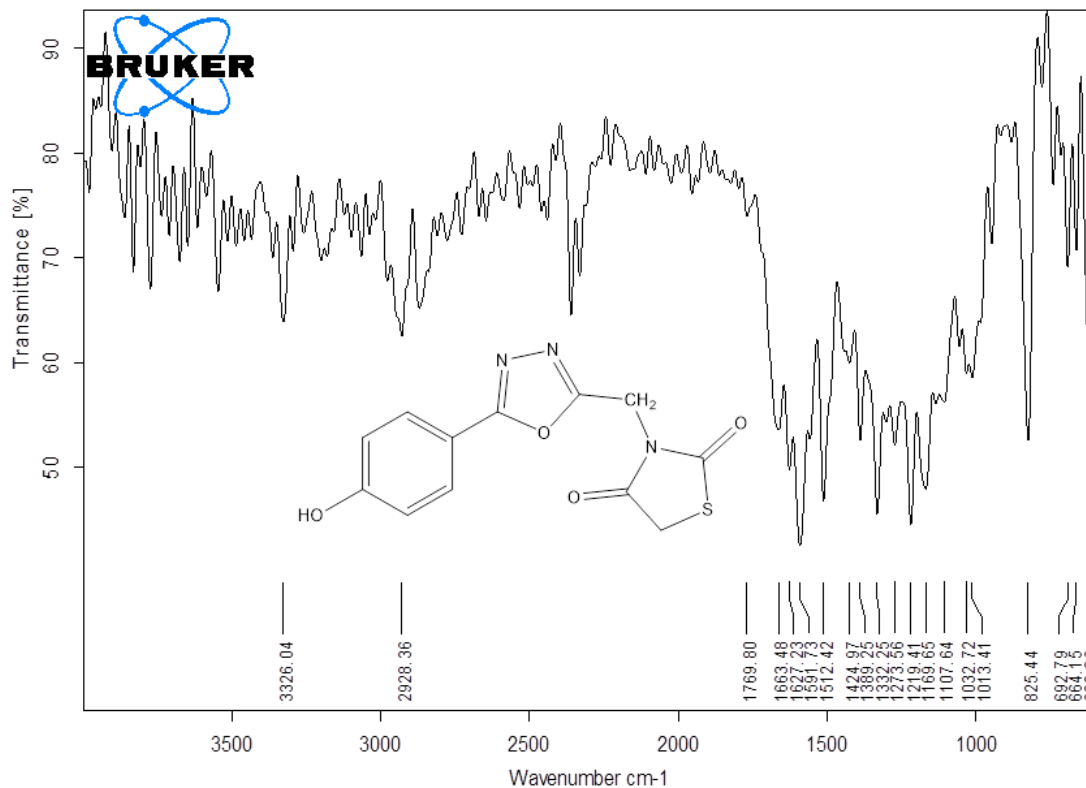
Compound 5c: 3-((5-(4-aminophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



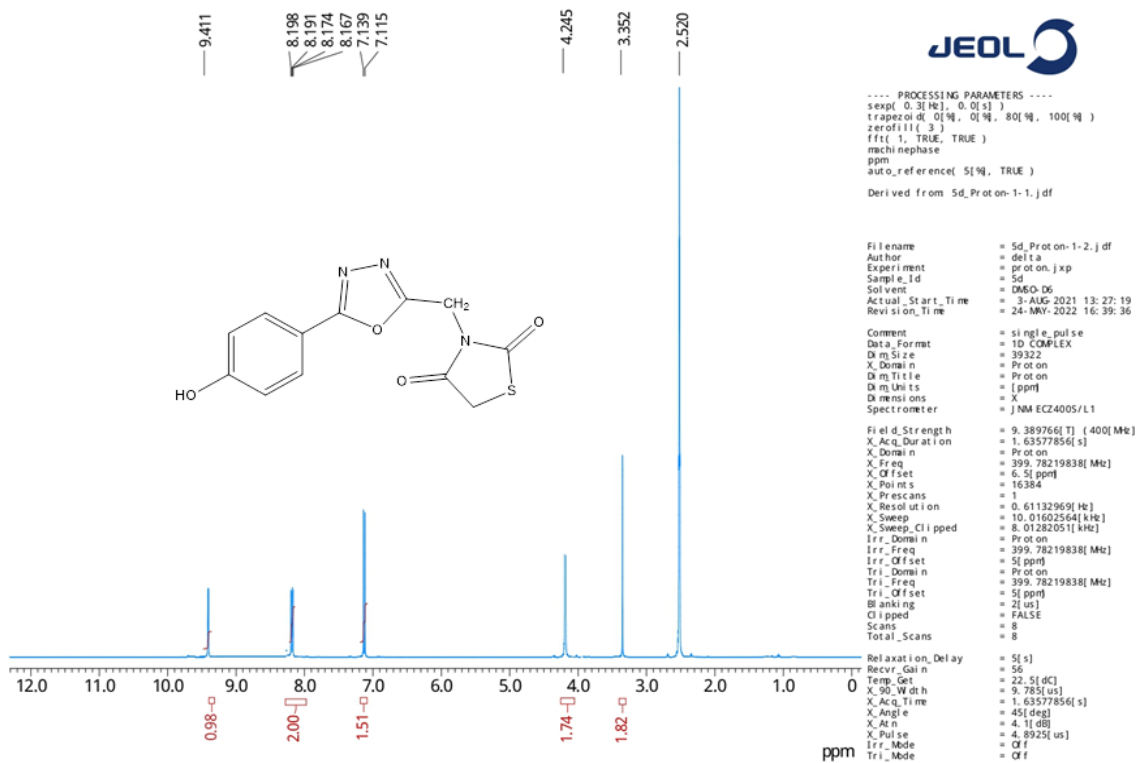
Compound 5c: 3-((5-(4-aminophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



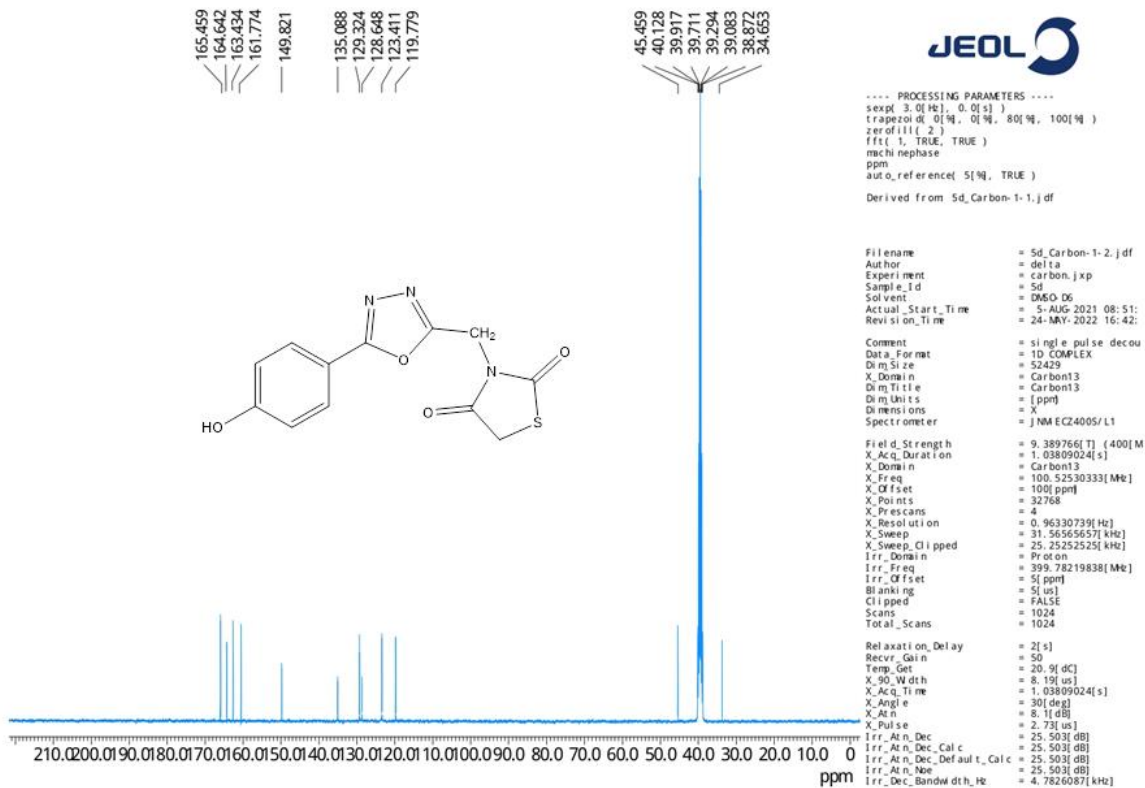
Compound 5d: 3-((5-(4-hydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



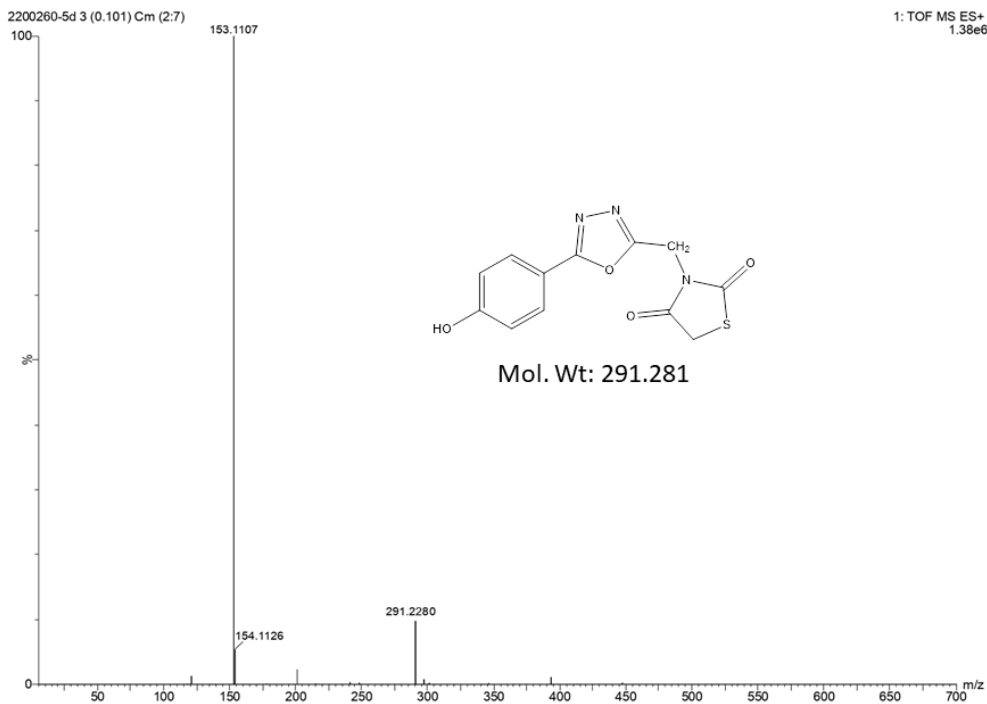
Compound 5d: 3-((5-(4-hydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



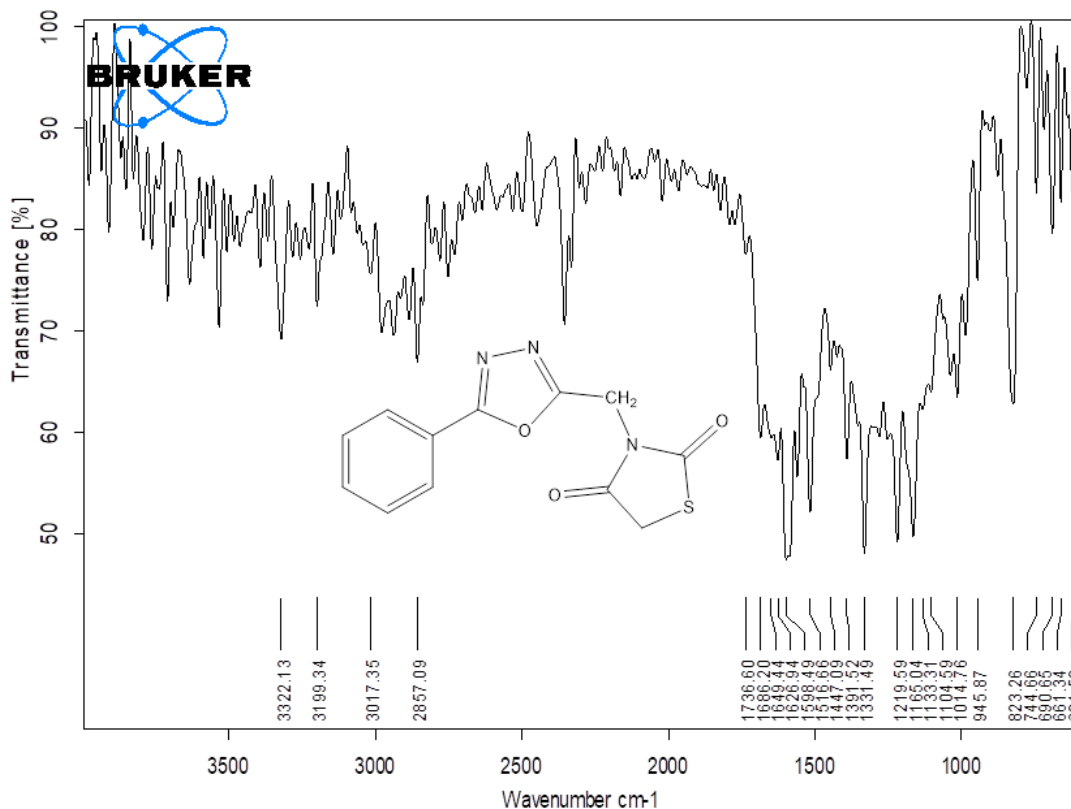
Compound 5d: 3-((5-(4-hydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



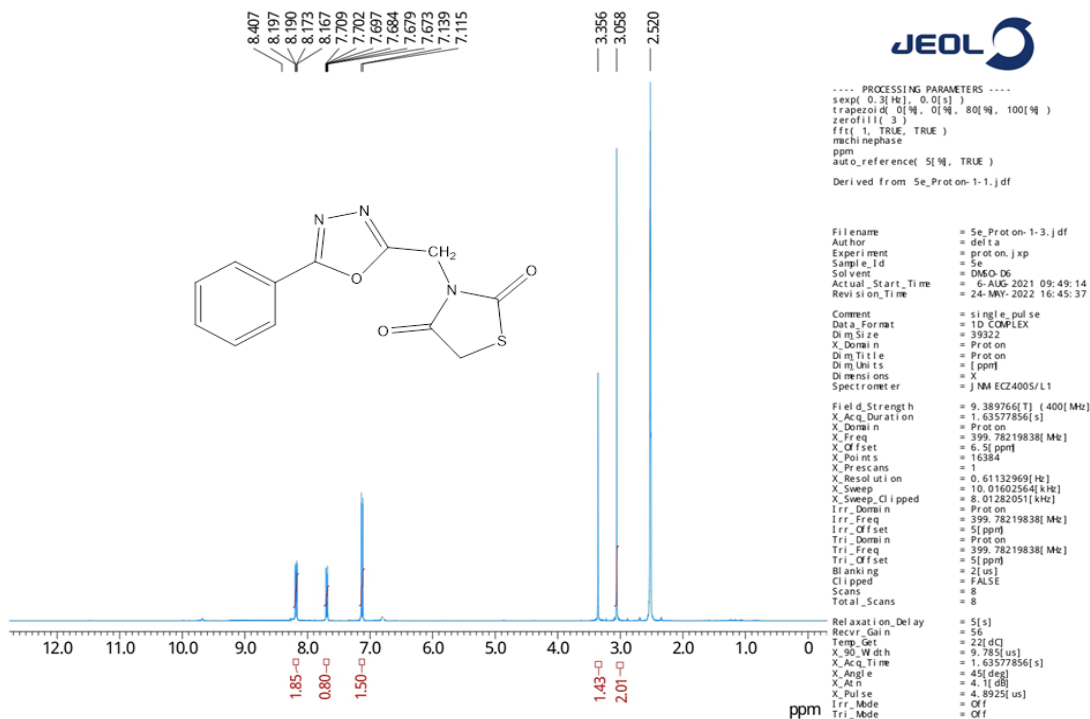
Compound 5d: 3-((5-(4-hydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



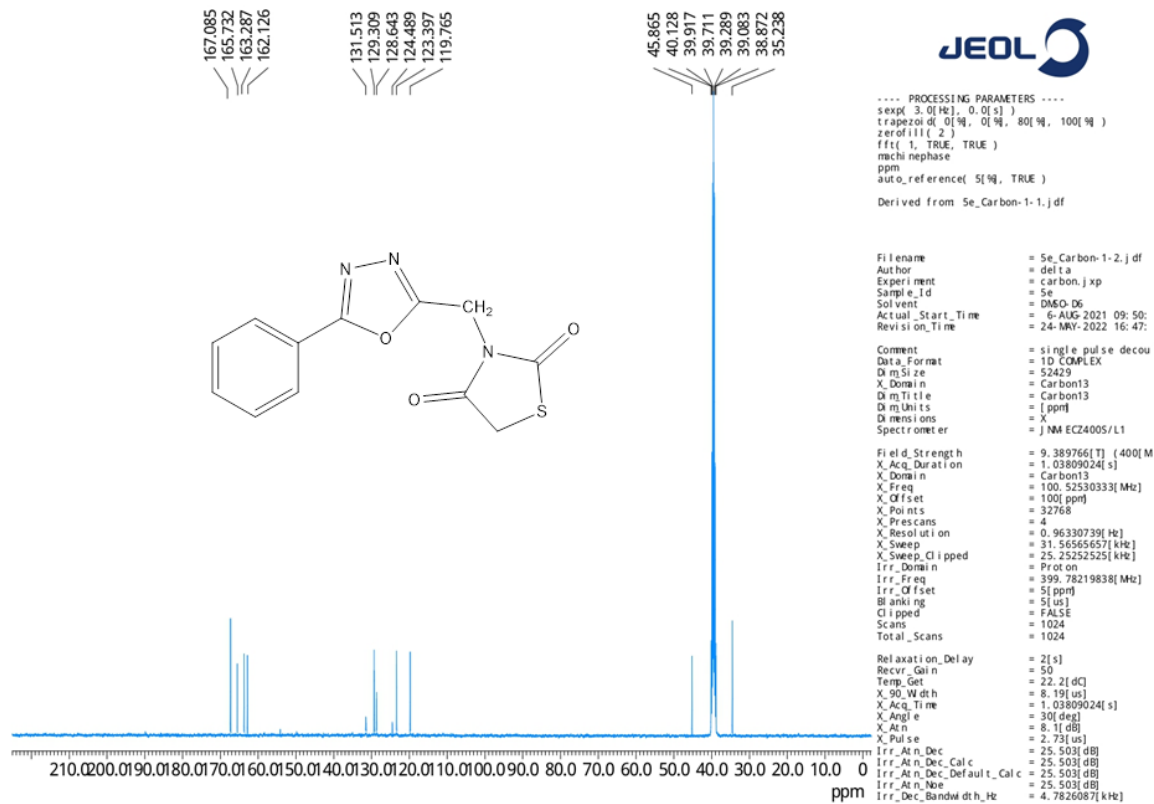
Compound 5e: 3-((5-phenyl-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione:



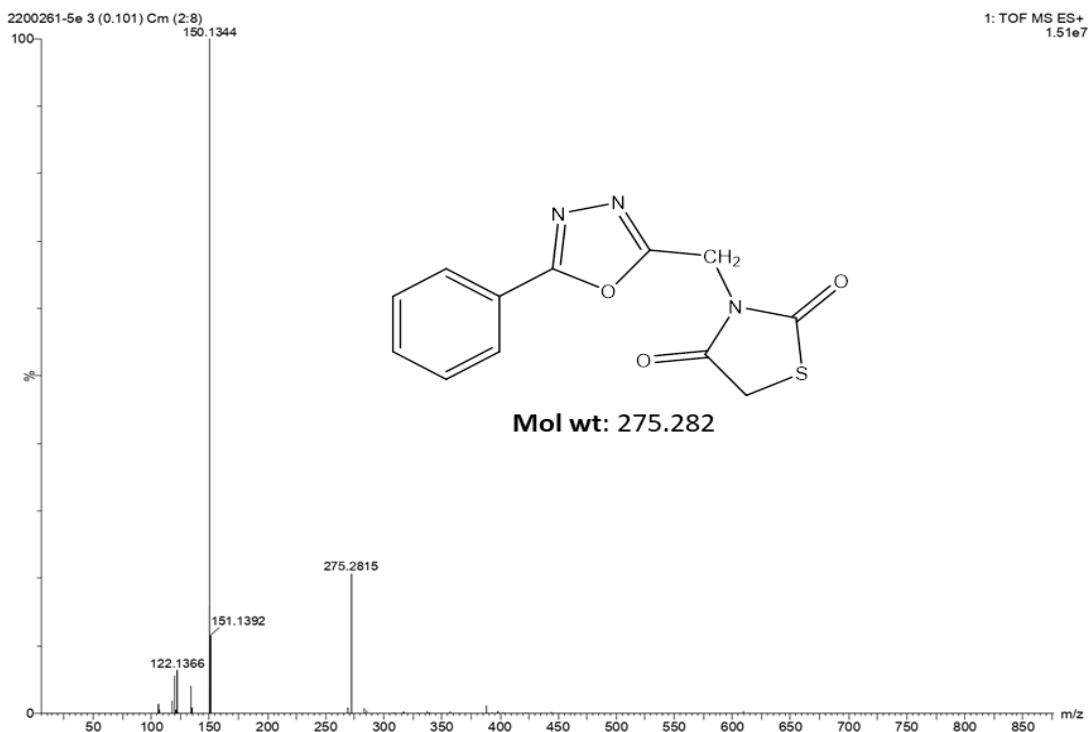
Compound 5e: 3-((5-phenyl-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione:



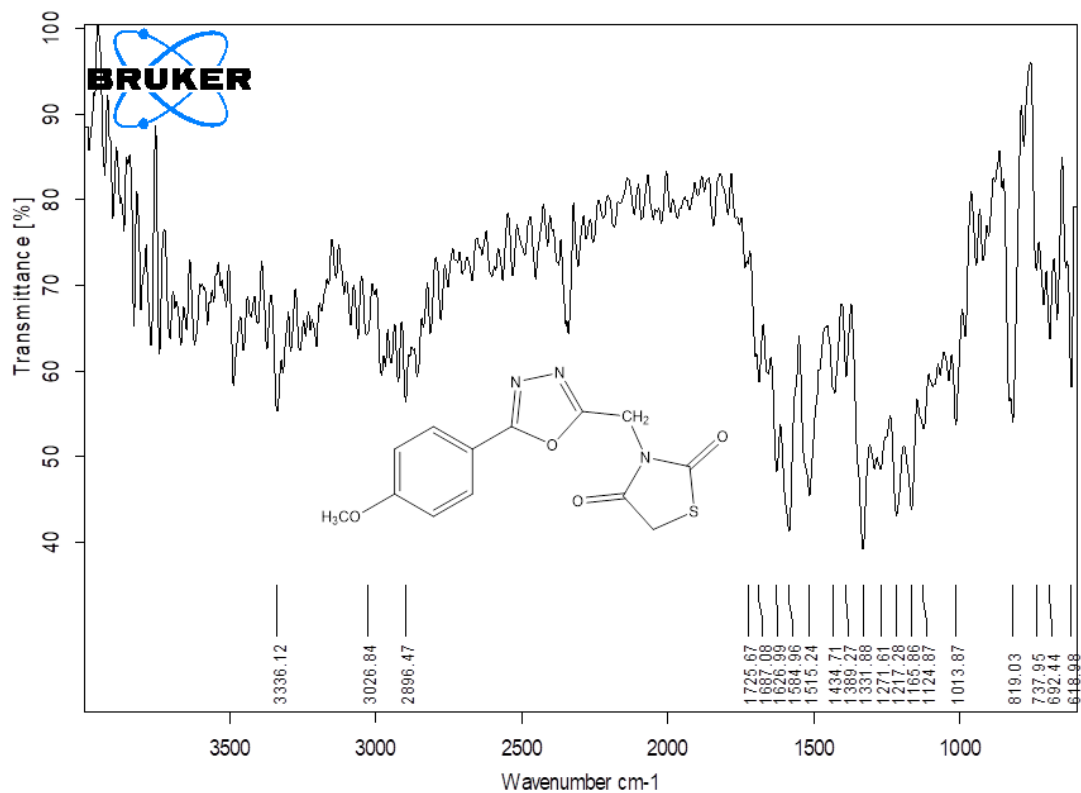
Compound 5e: 3-((5-phenyl-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione:



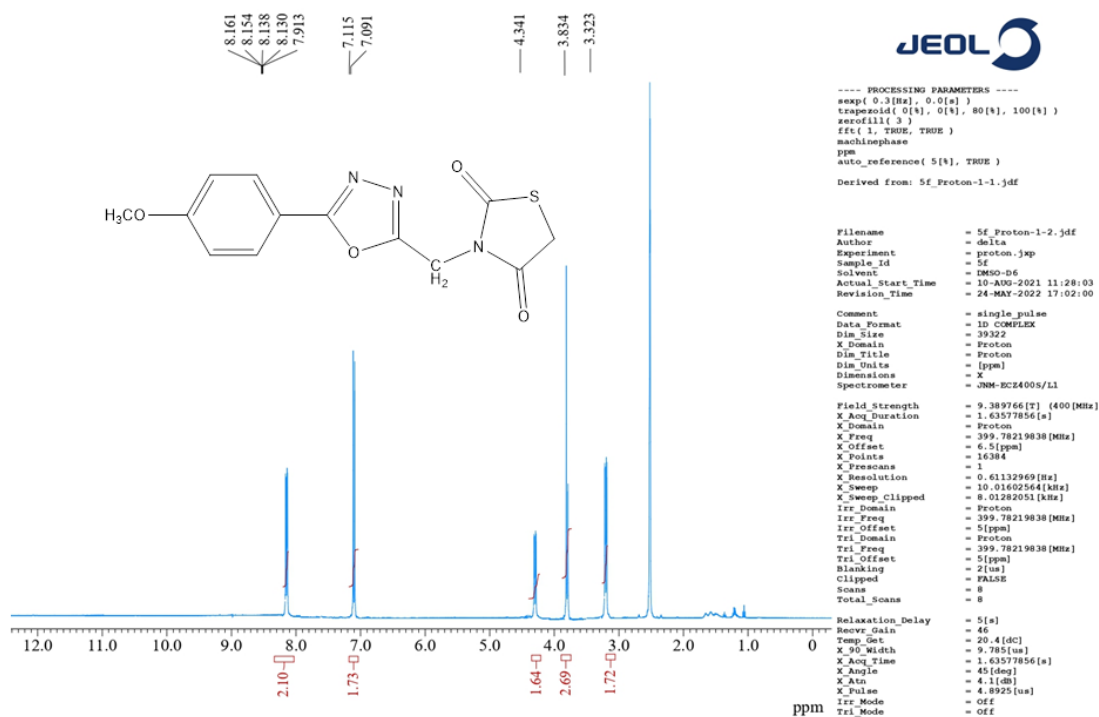
Compound 5e: 3-((5-phenyl-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione:



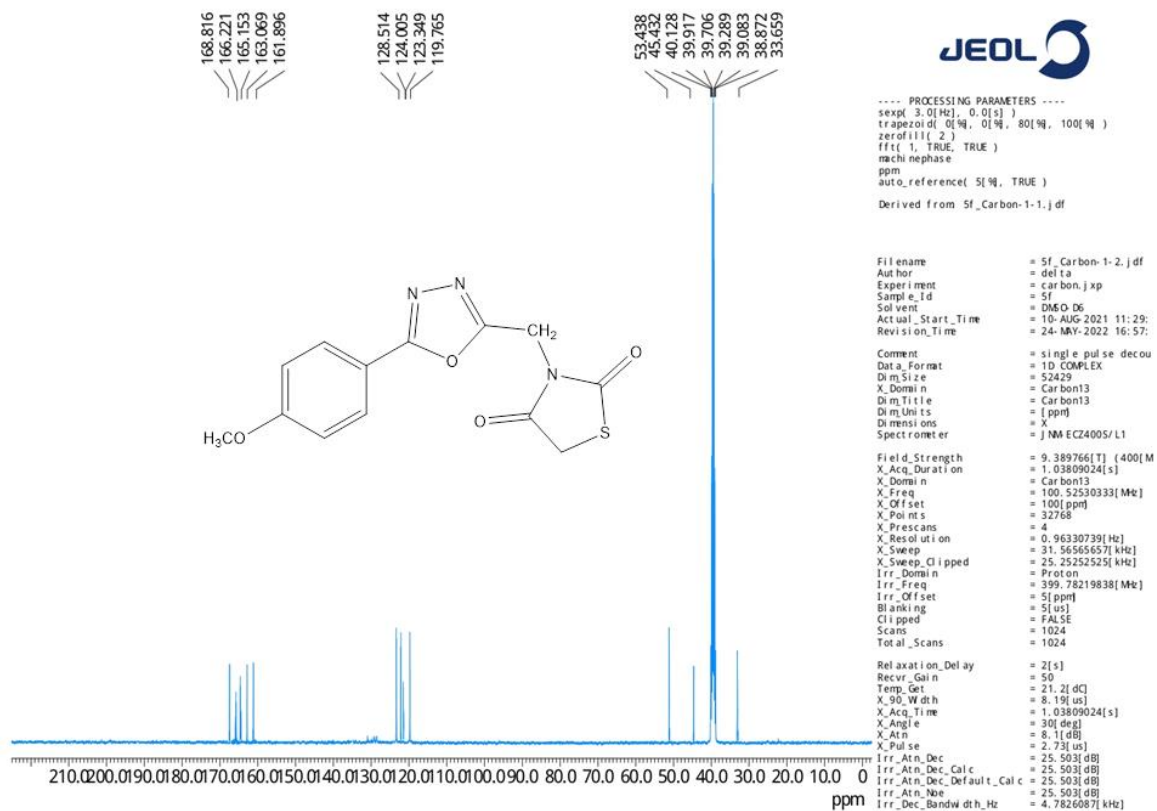
Compound 5f: 3-((5-(4-methoxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



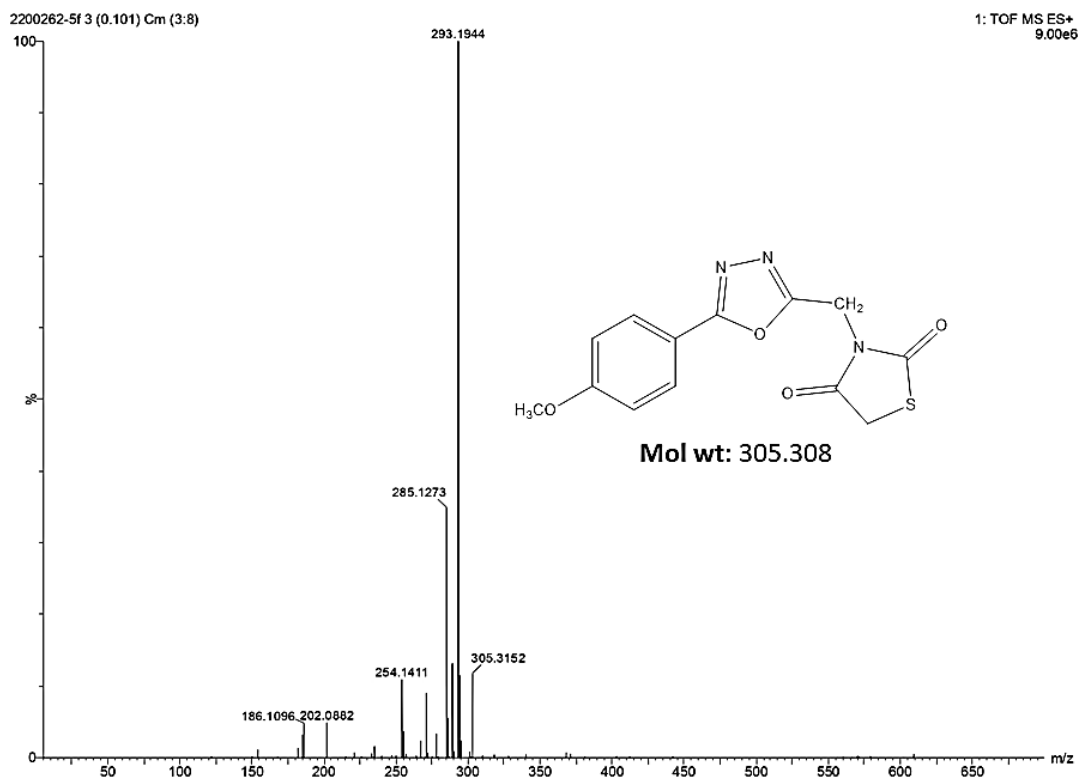
Compound 5f: 3-((5-(4-methoxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



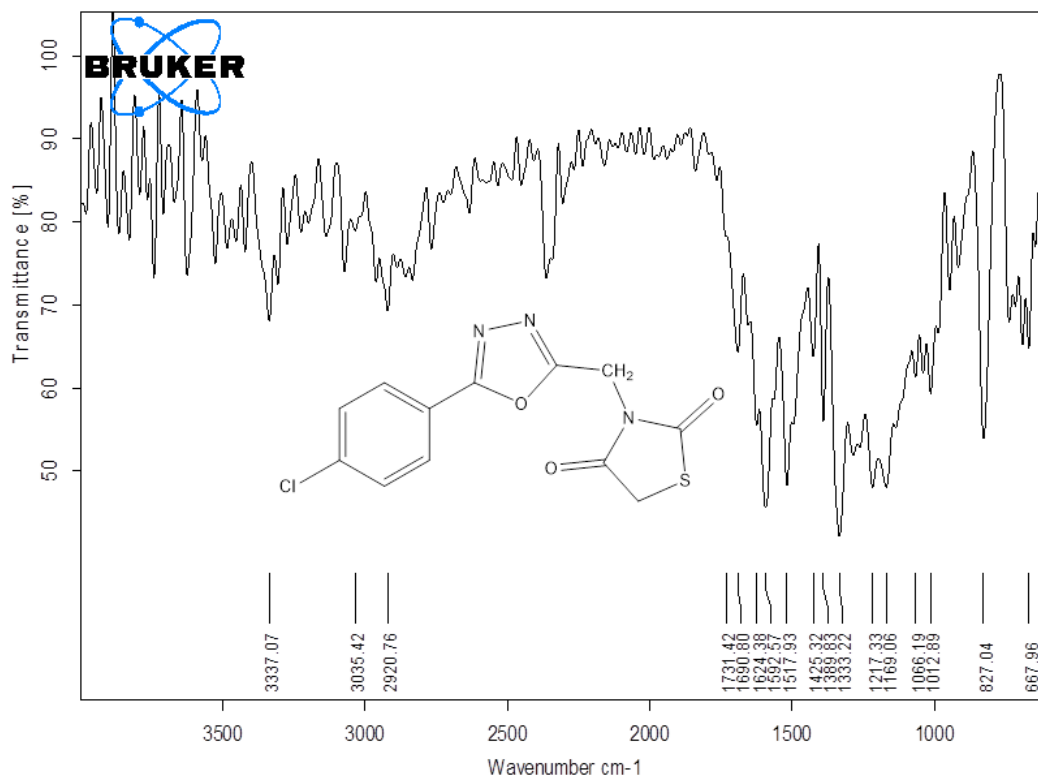
Compound 5f: 3-((5-(4-methoxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



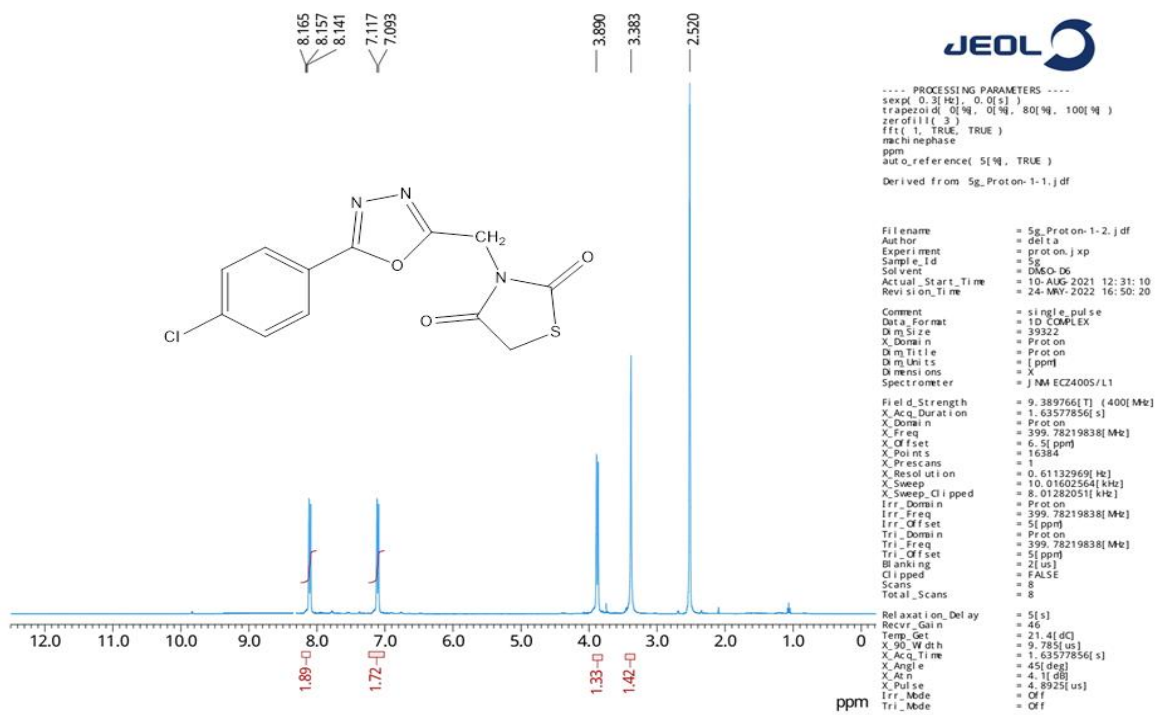
Compound 5f: 3-((5-(4-methoxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



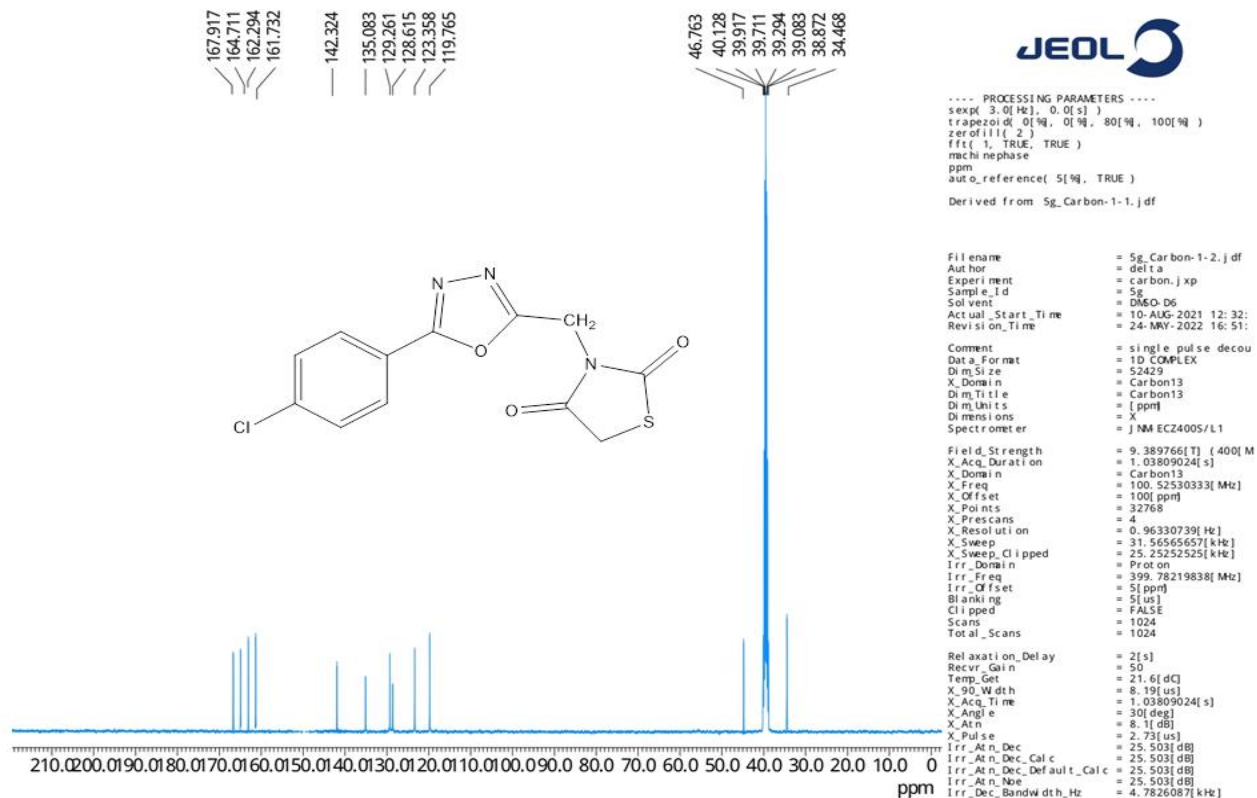
Compound 5g: 3-((5-(4-chlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



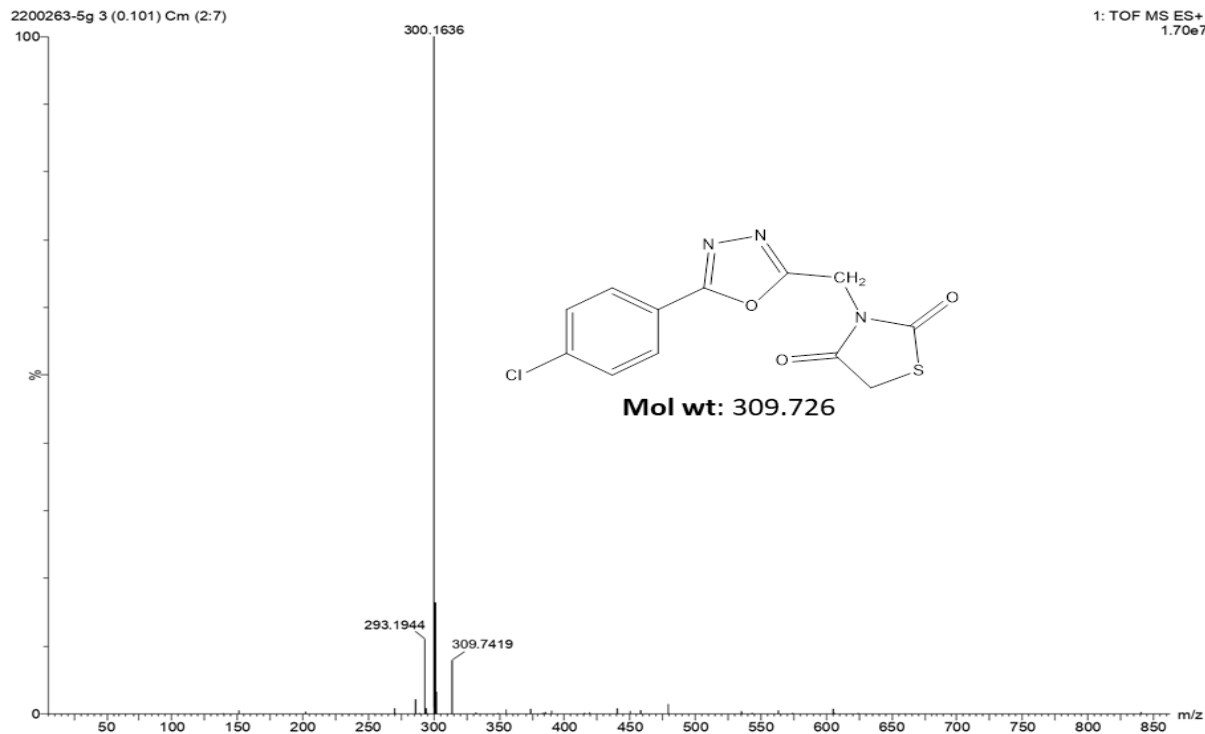
Compound 5g: 3-((5-(4-chlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



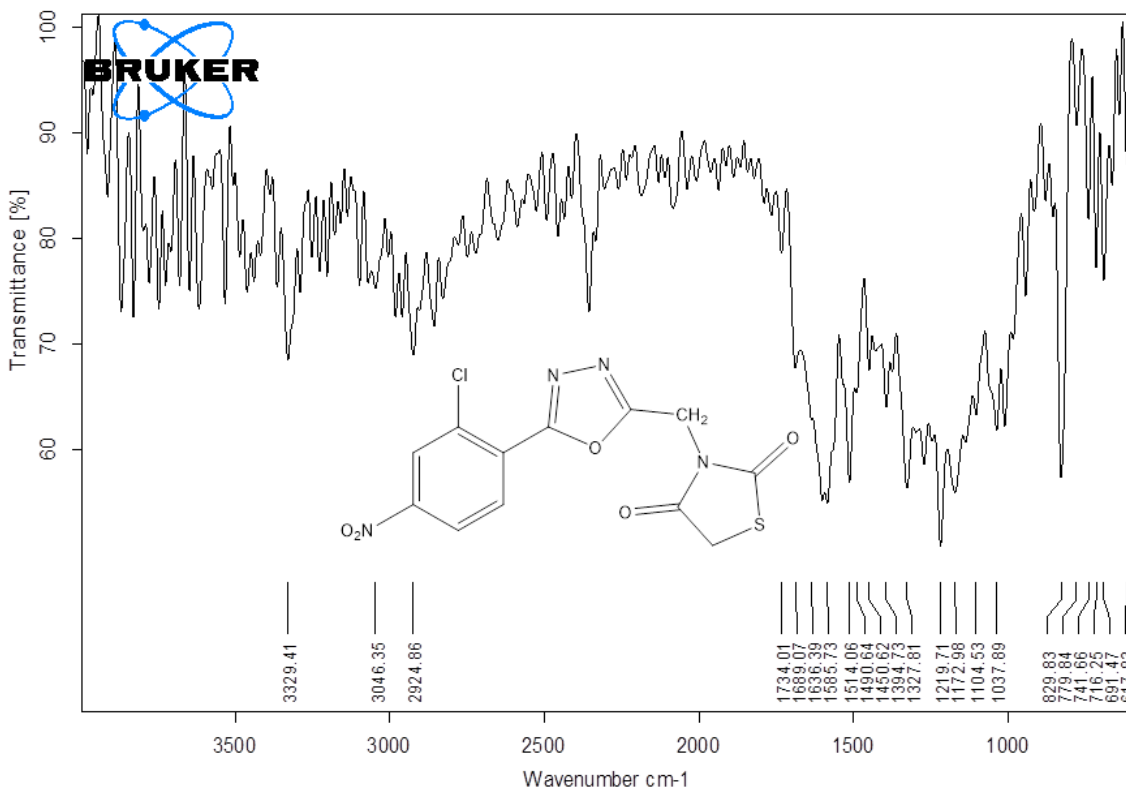
Compound 5g: 3-((5-(4-chlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



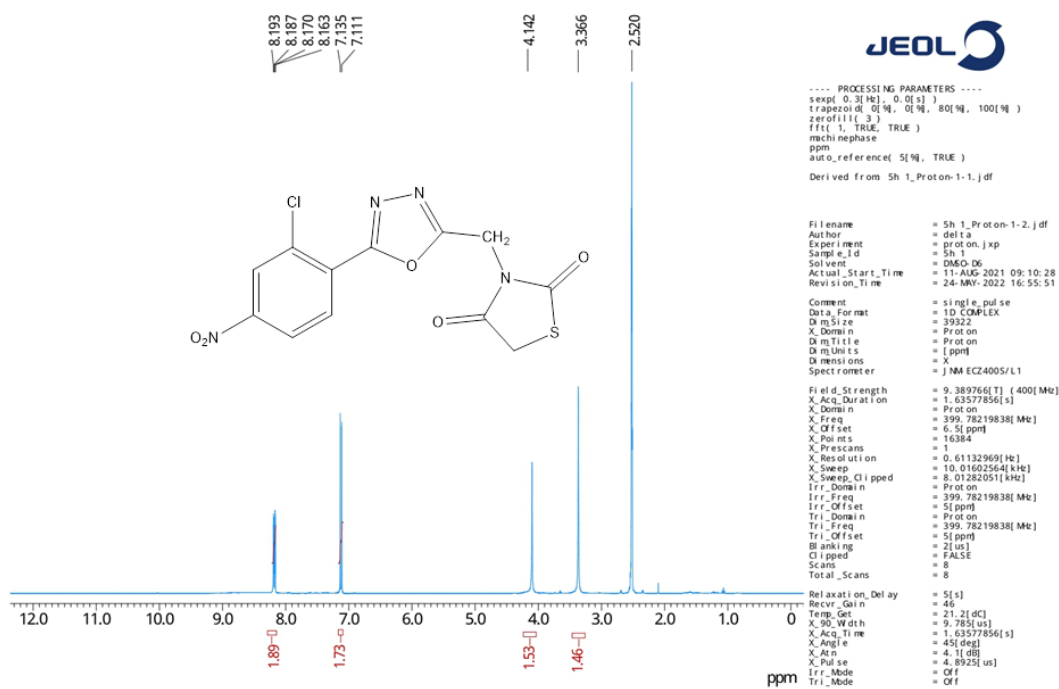
Compound 5g: 3-((5-(4-chlorophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



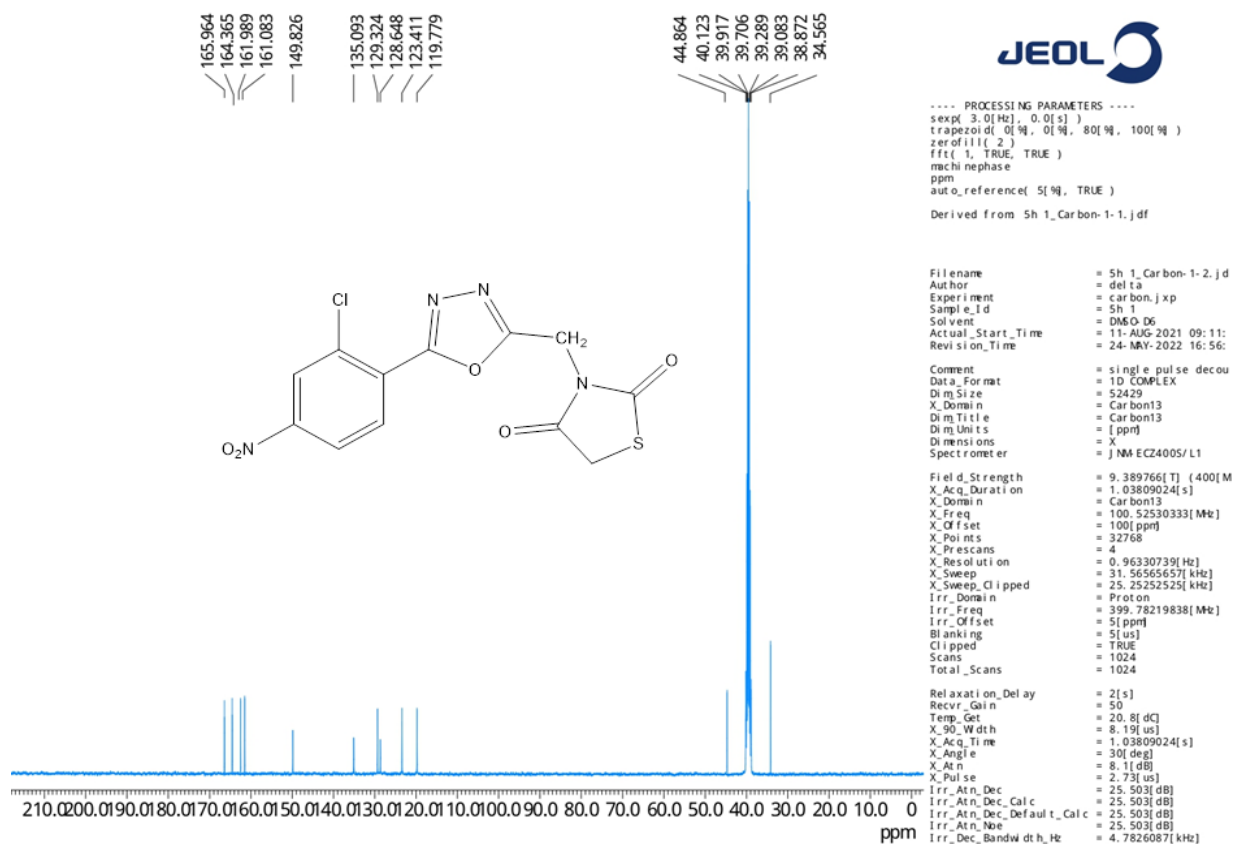
Compound 5h: 3-((5-(2-chloro-4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



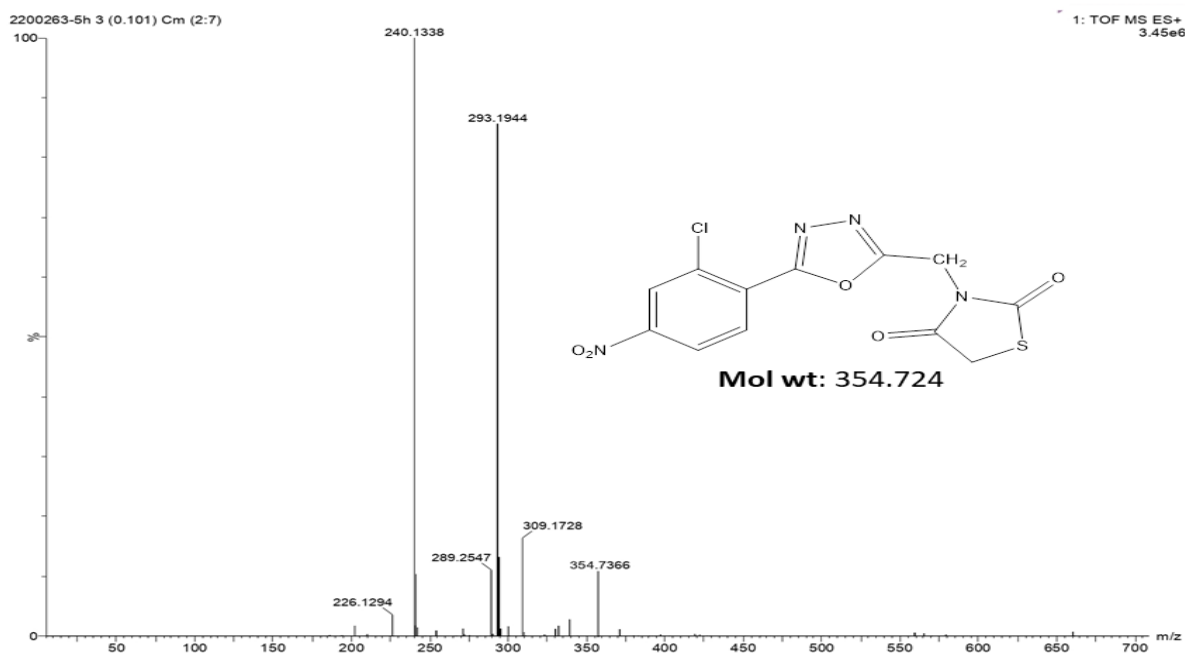
Compound 5h: 3-((5-(2-chloro-4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



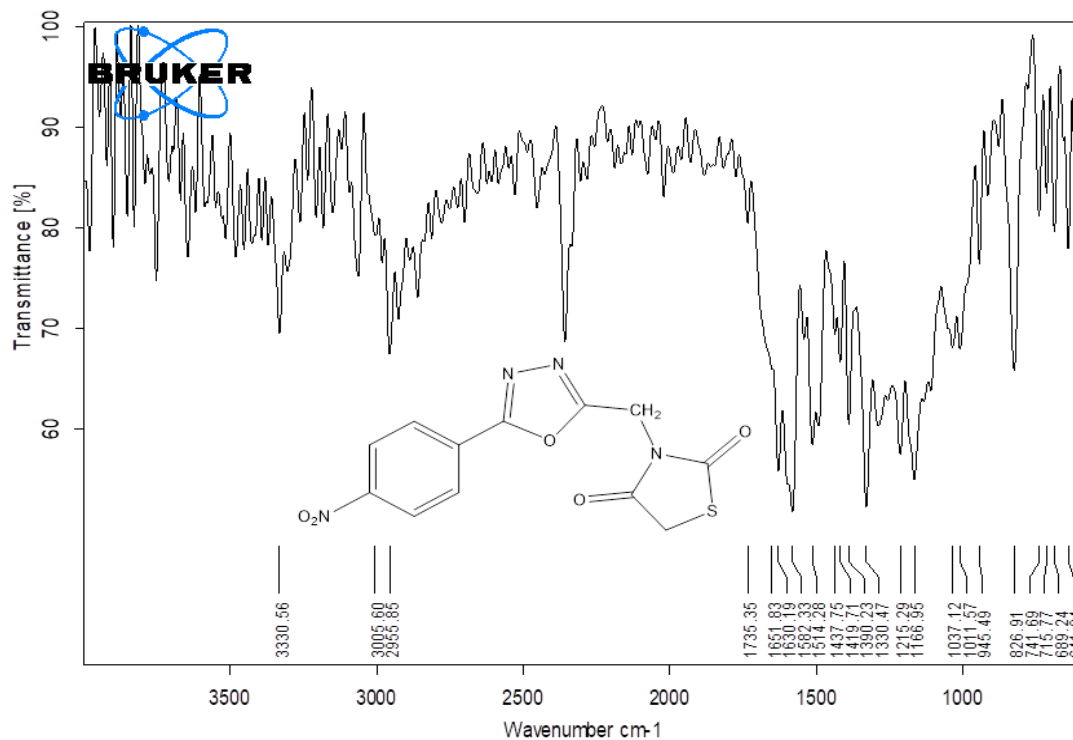
Compound 5h: 3-((5-(2-chloro-4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



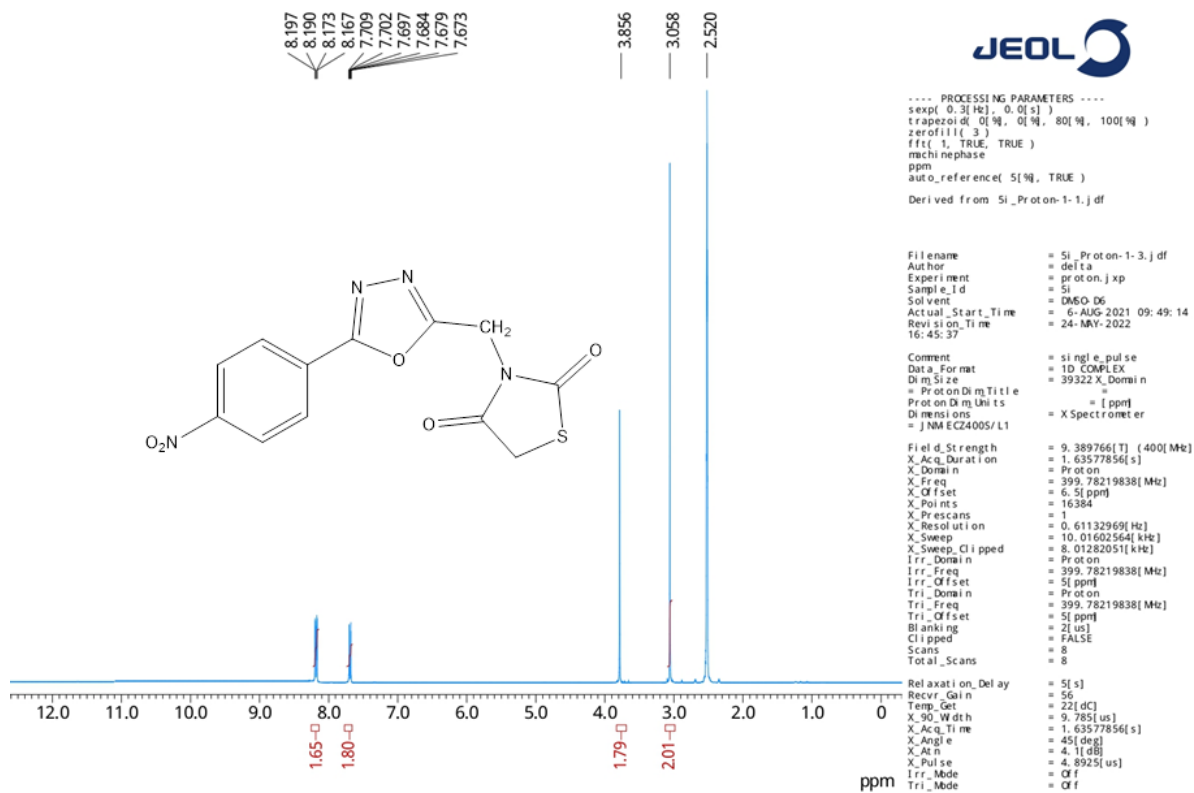
Compound 5h: 3-((5-(2-chloro-4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



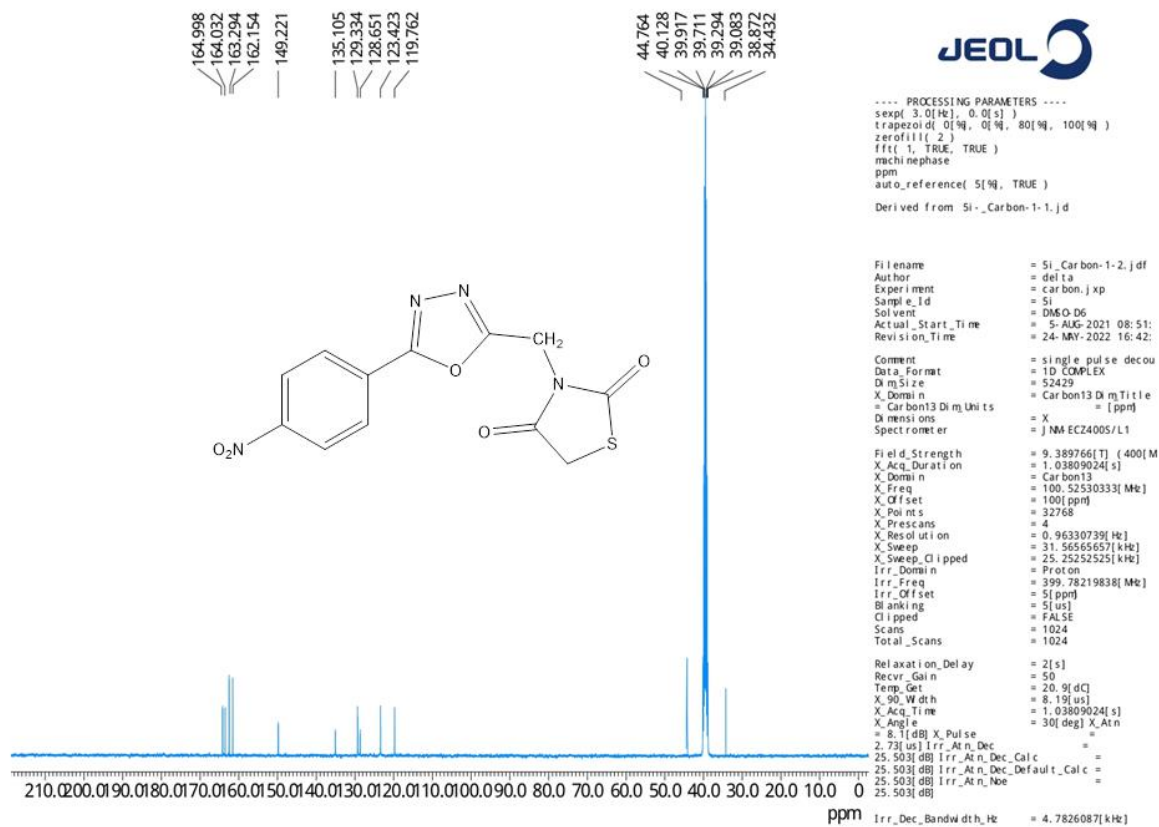
Compound 5i: 3-((5-(4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



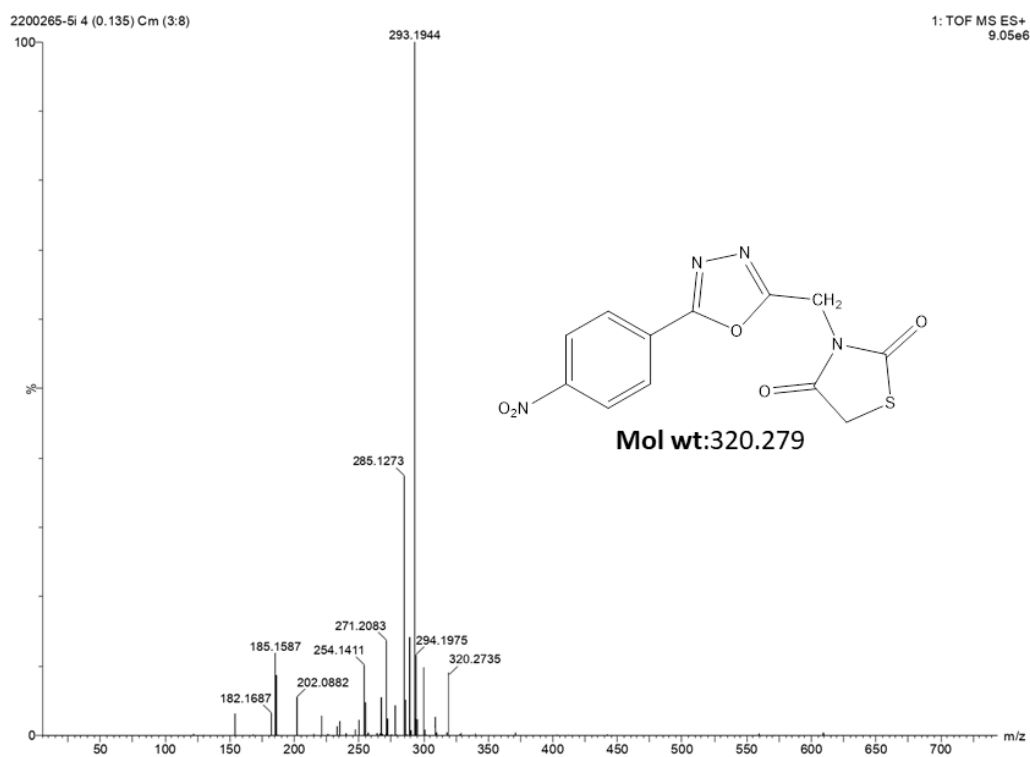
Compound 5i: 3-((5-(4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



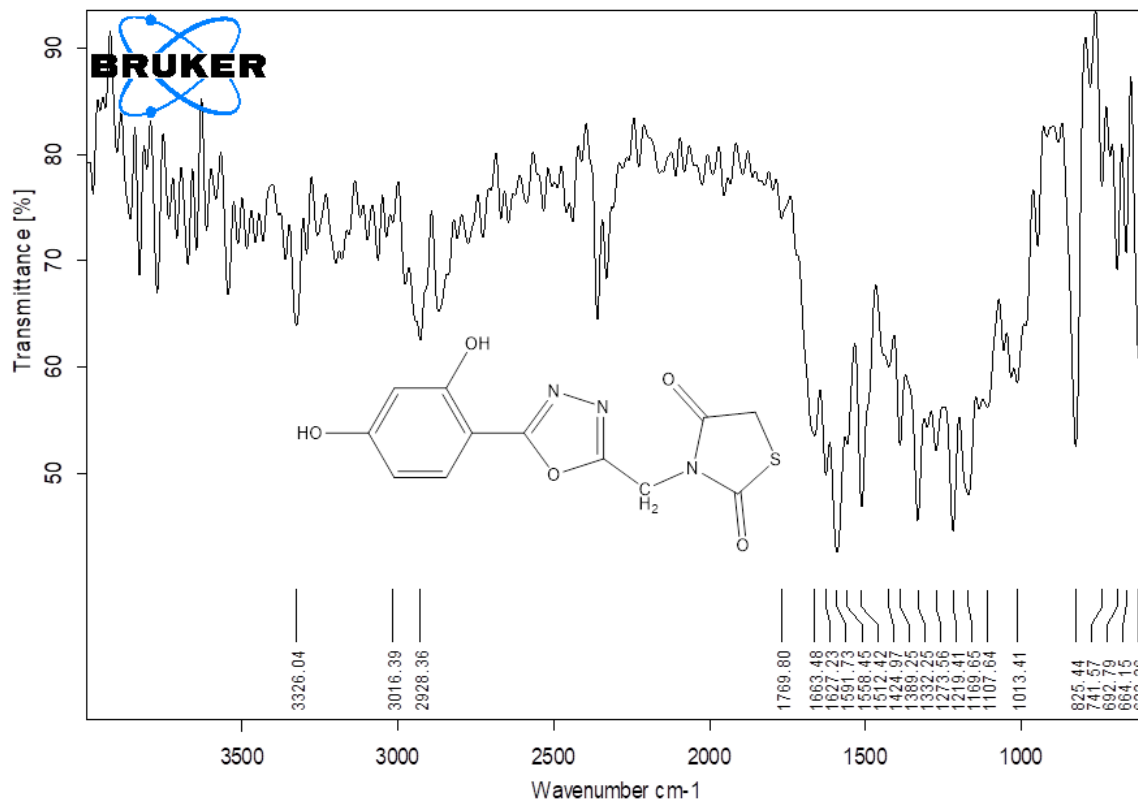
Compound 5i: 3-((5-(4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



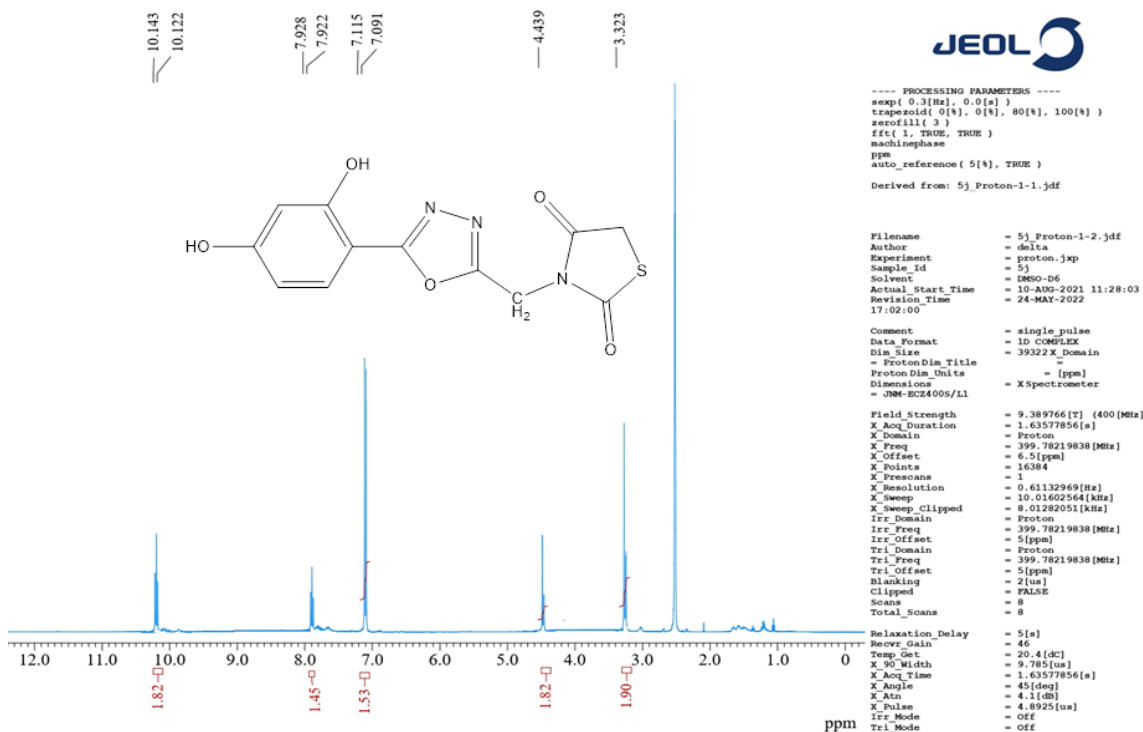
Compound 5i: 3-((5-(4-nitrophenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



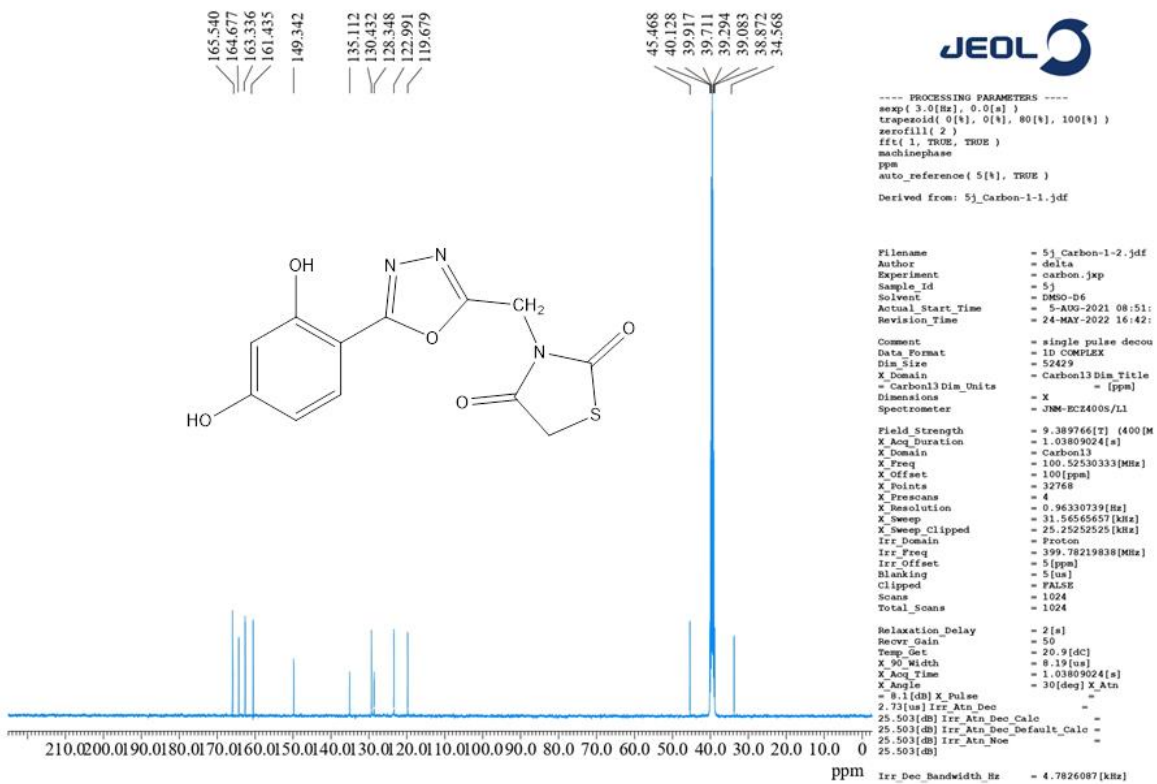
Compound 5j: 3-((5-(2,4-dihydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



Compound 5j: 3-((5-(2,4-dihydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



Compound 5j: 3-((5-(2,4-dihydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione



Compound 5j: 3-((5-(2,4-dihydroxyphenyl)-1,3,4-oxadiazol-2-yl)methyl)thiazolidine-2,4-dione

