

1,2,3-triazole–quinazolin-4(3H)-one conjugates: Evolution of ergosterol inhibitor as anticandidal agent

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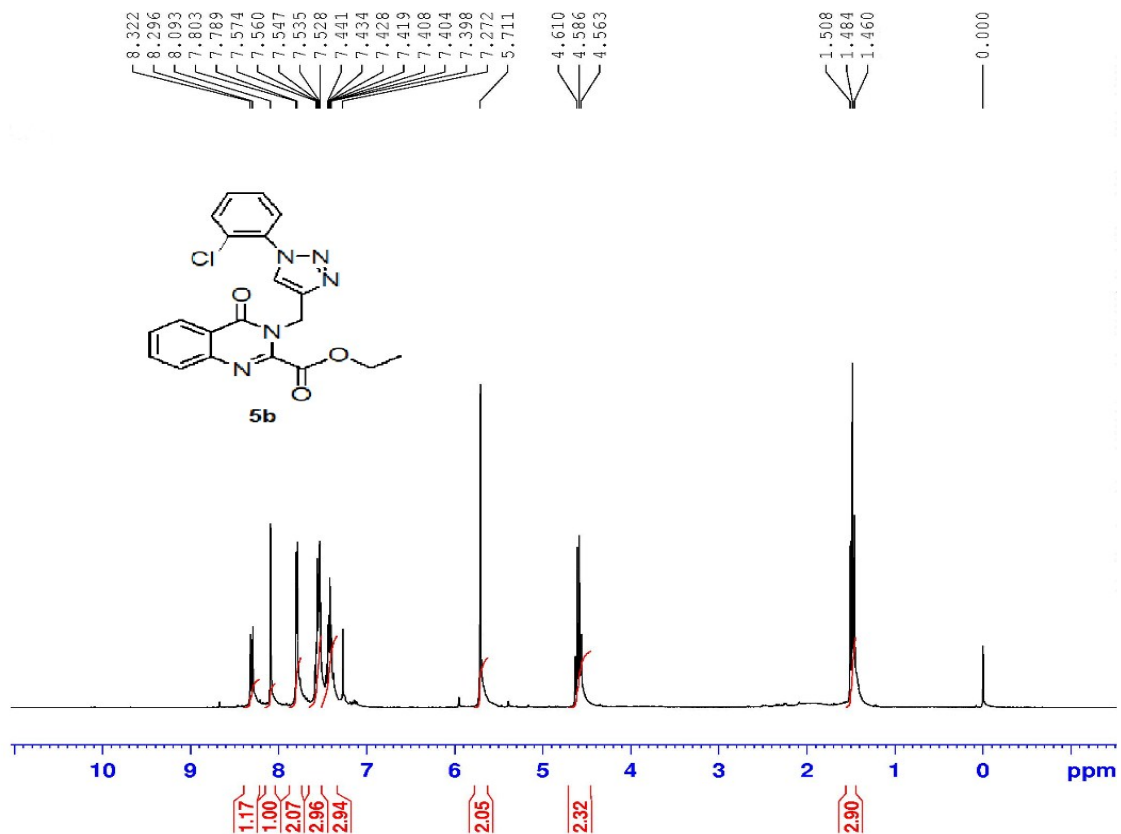


Fig. S1 ¹H NMR spectrum of compound **5b**

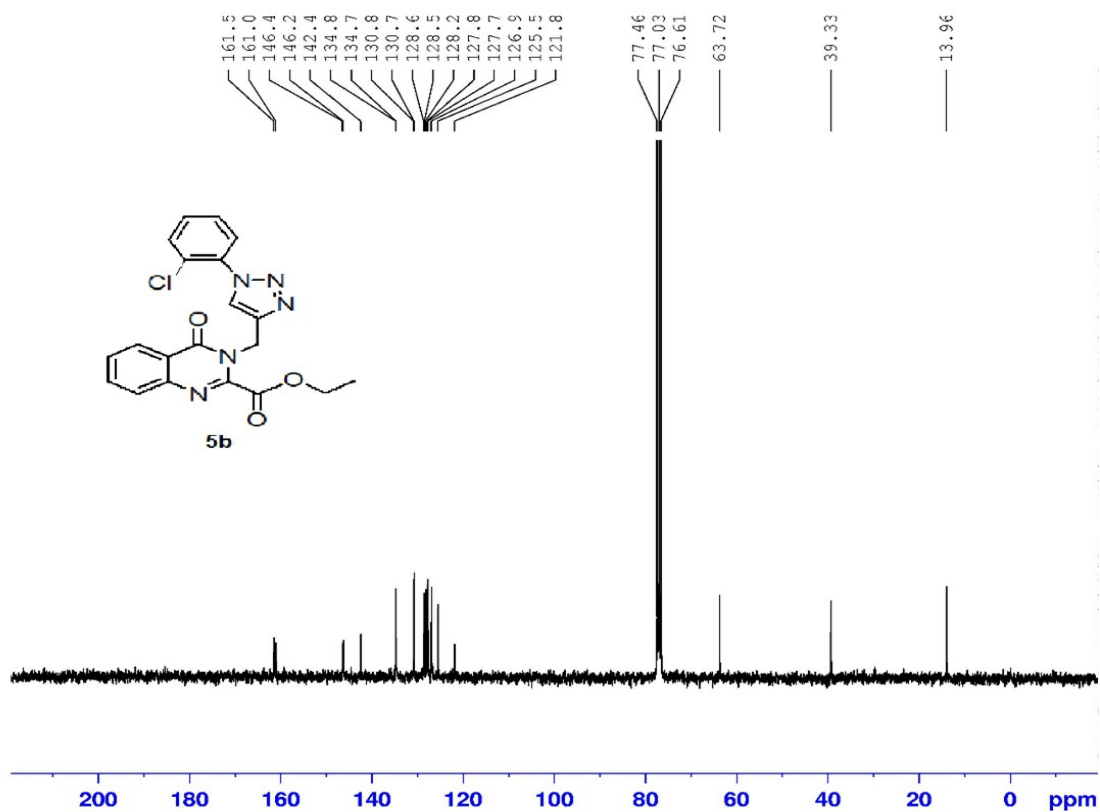


Fig. S2 ^{13}C NMR spectrum of compound **5b**

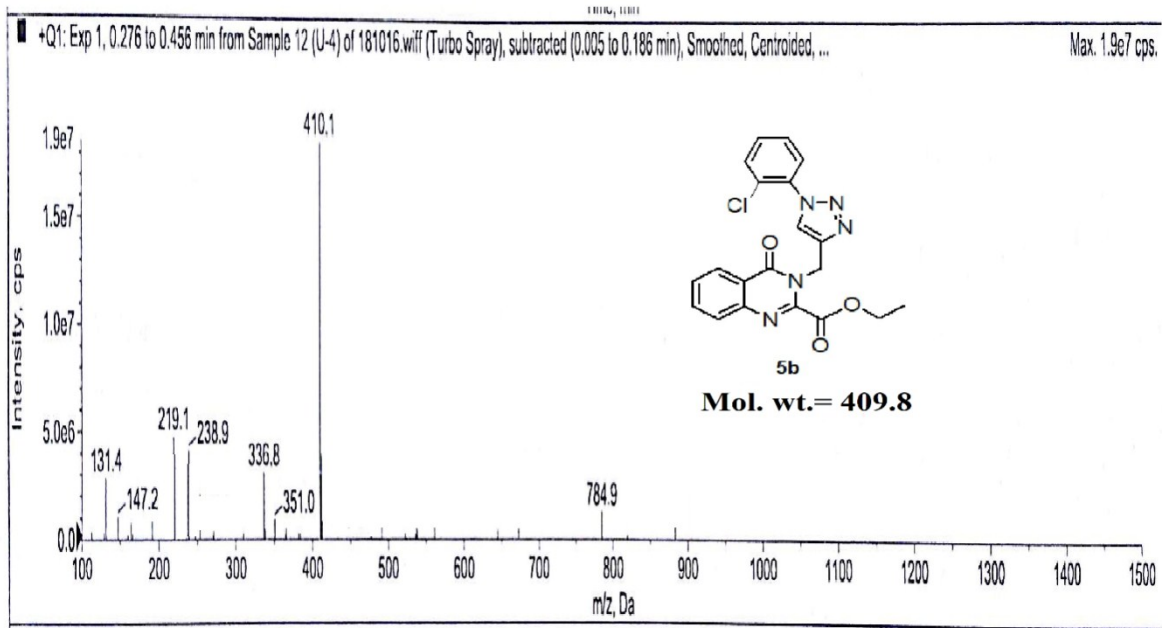


Fig. S3 LC-MS spectrum of compound **5b**

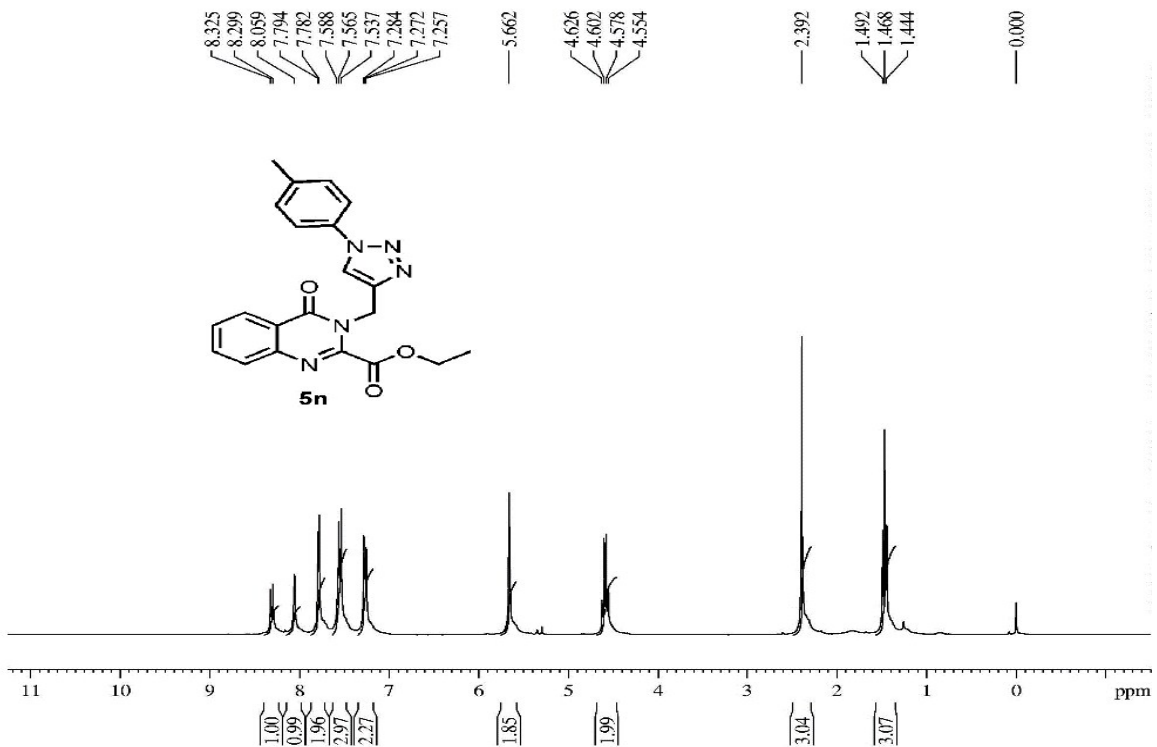


Fig. S4 ^1H NMR spectrum of compound **5n**

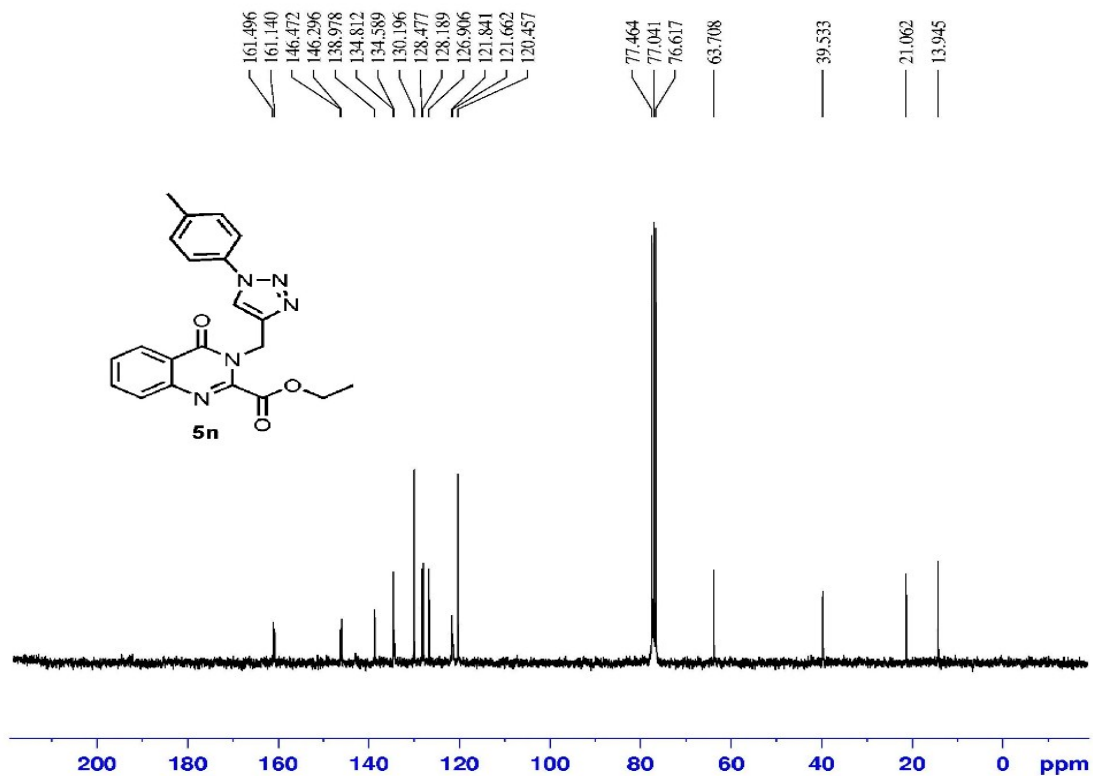


Fig. S5 ¹³C NMR spectrum of compound **5n**

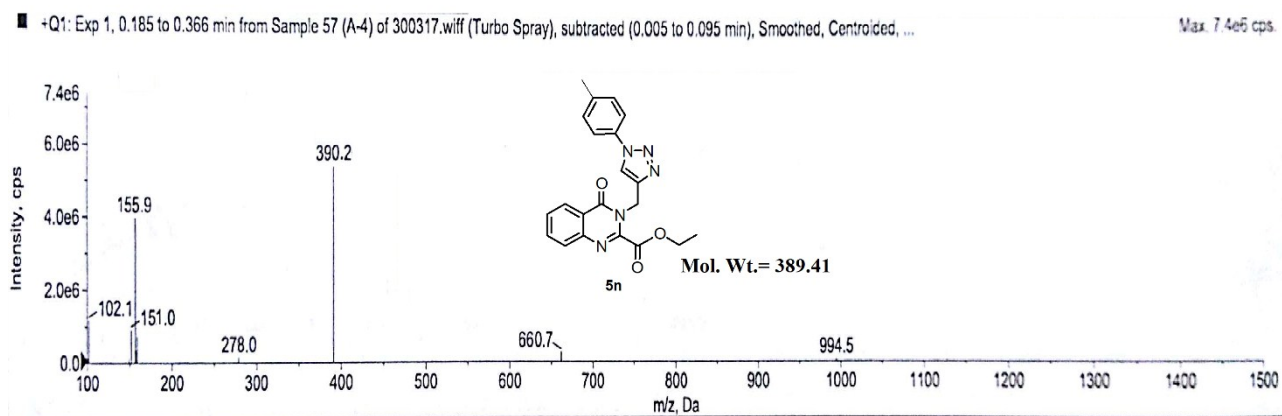


Fig. S6 LC-MS spectrum of compound **5n**

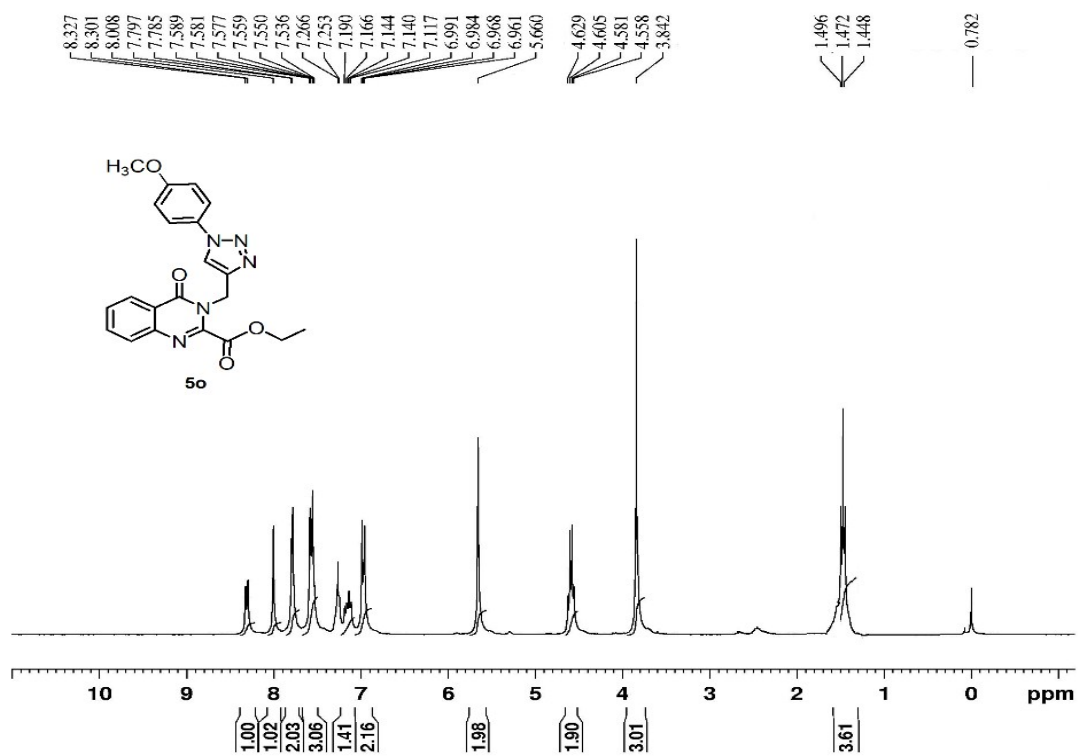


Fig. S7 ¹H NMR spectrum of compound **5o**

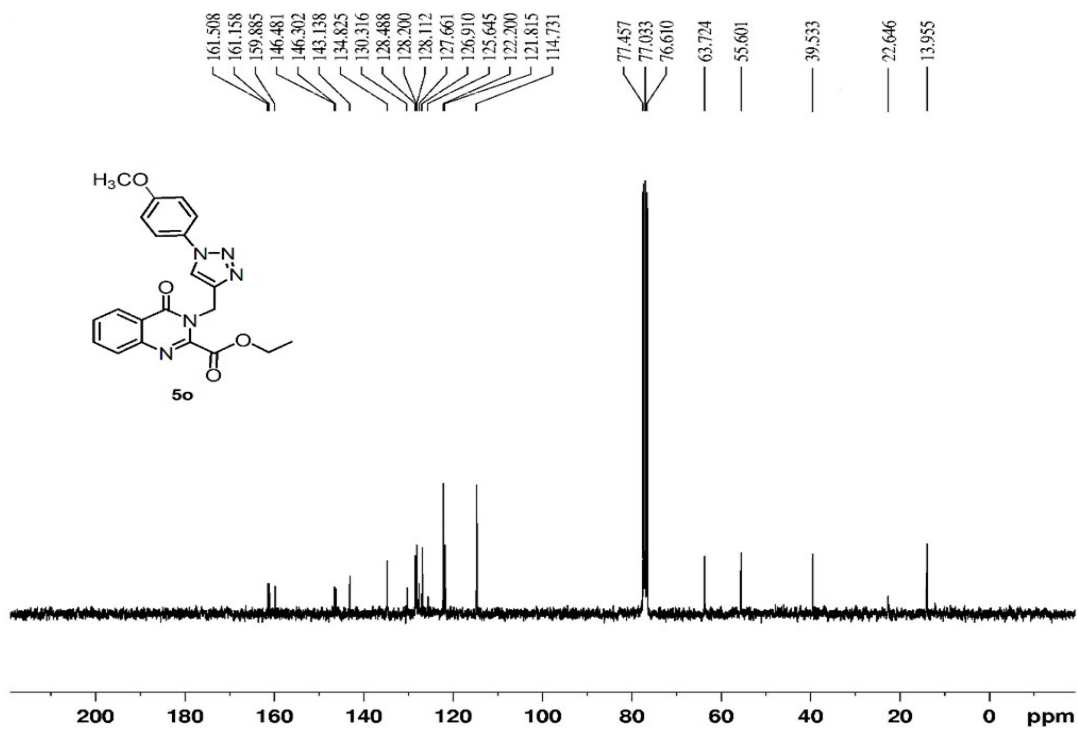


Fig. S8 ¹³C NMR spectrum of compound **5o**

+Q1: Exp 1, 0.275 to 0.456 min from Sample 10 (U-8) of 181016.wiff (Turbo Spray), subtracted (0.005 to 0.185 min), Smoothed, Centroided, ...

Max. 2.7e7 cps

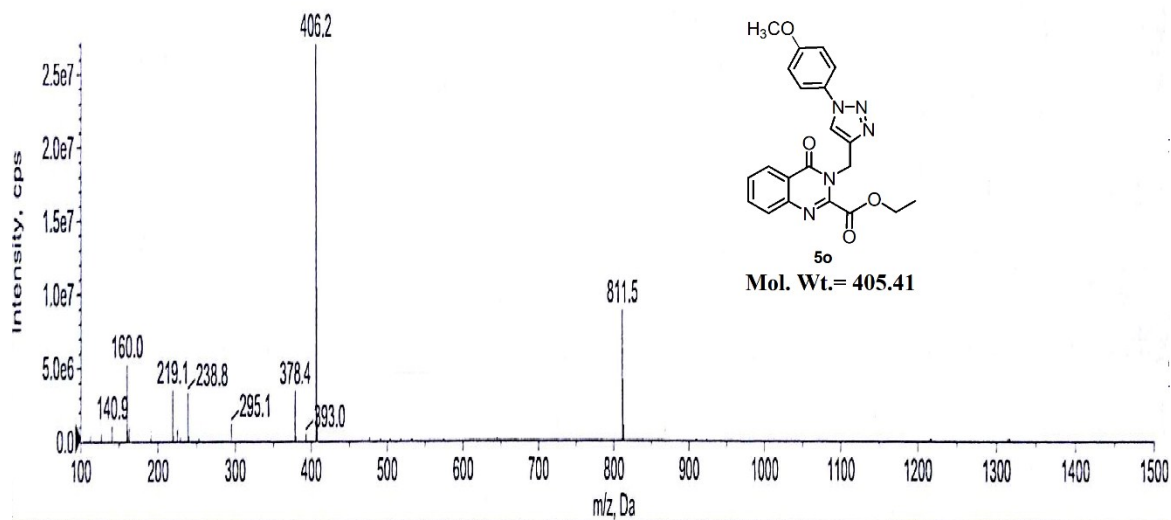


Fig. S9 LC-MS spectrum of compound **5o**

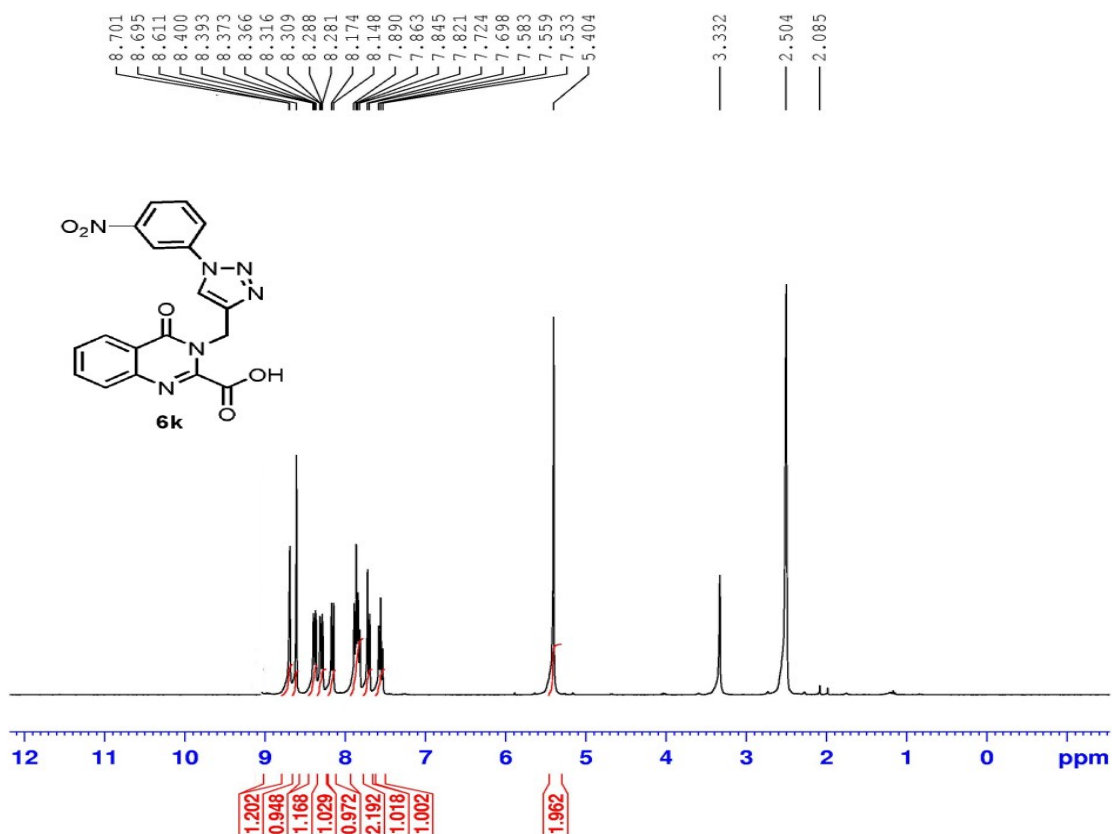


Fig. S10 ¹H NMR spectrum of compound **6k**

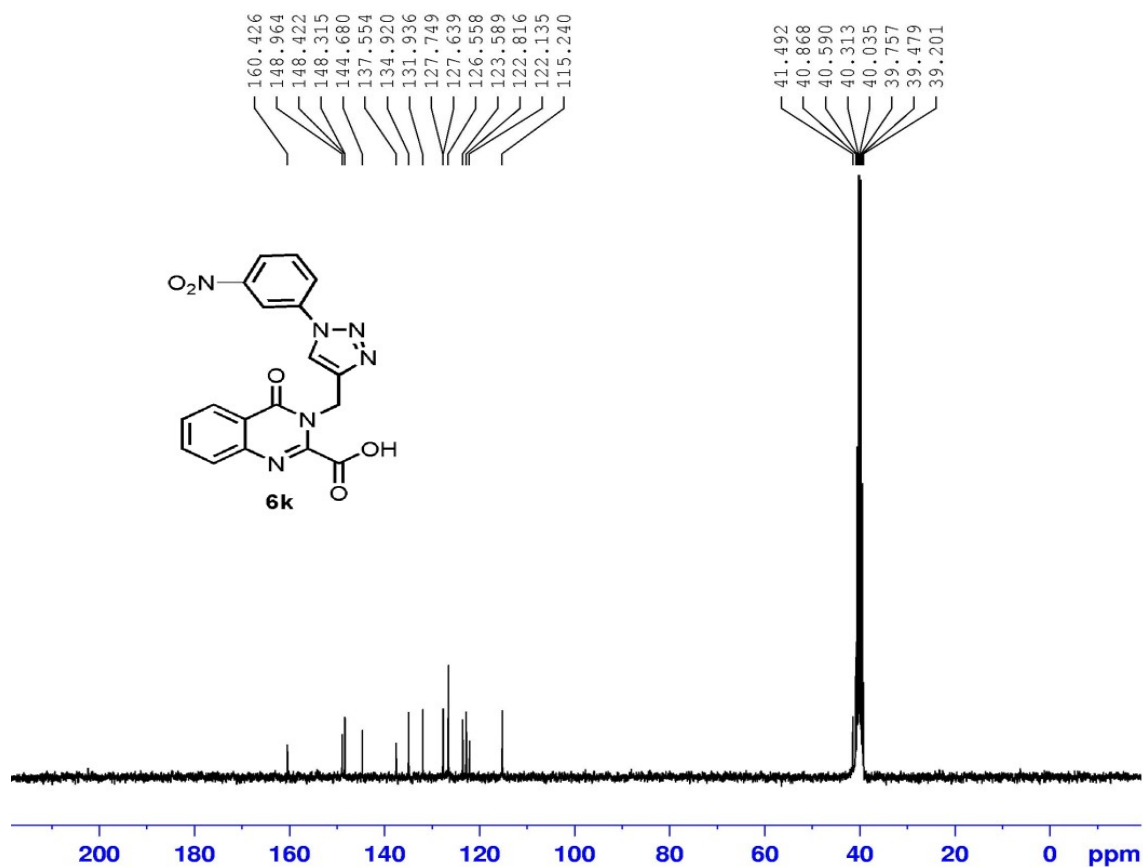


Fig. S11 ¹³C NMR spectrum of compound **6k**

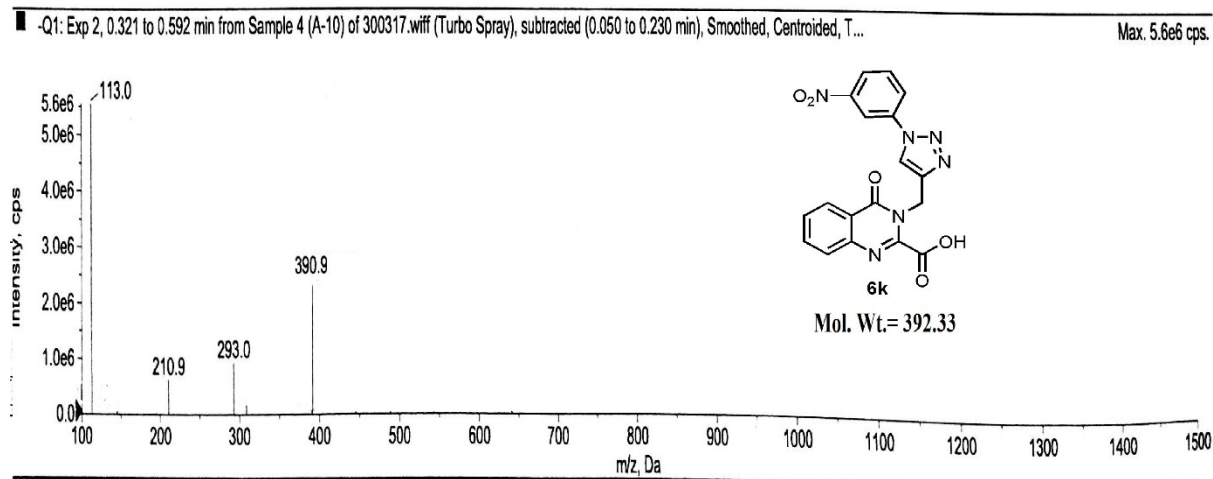


Fig. S12 LC-MS spectrum of compound **6k**

X-ray crystallographic analysis of Ethyl 4-oxo-3-(prop-2-ynyl)-3,4-dihydroquinazoline-2-carboxylate (2)

Table S1 Fractional Atomic Coordinates ($\times 10^4$) and Equivalent Isotropic Displacement Parameters ($\text{\AA}^2 \times 10^3$) for compound **2**. U_{eq} is defined as 1/3 of the trace of the orthogonalised U_{IJ} tensor.

Atom	<i>x</i>	<i>y</i>	<i>z</i>	U(eq)
N1	403.0(9)	3791.4(9)	3255.6(9)	17.1(2)
N2	1981.6(9)	3670.1(9)	5430.1(9)	19.1(2)
O2	1321.2(10)	1017.1(9)	5048.7(10)	33.1(3)
C5	1152.8(11)	5726.4(11)	4449.6(11)	17.9(3)
O3	1698.1(13)	1446.2(10)	3309.8(10)	41.9(3)
C9	2735.7(12)	5578.2(12)	6673.0(11)	20.6(3)
C4	301.4(11)	5113.5(11)	3244.9(11)	17.9(3)
C8	2734.3(12)	6882.3(12)	6765.2(12)	23.0(3)
C11	1249.0(11)	3155.5(11)	4340.8(11)	18.2(3)
C12	1403.3(12)	1733.5(12)	4276.6(11)	23.3(3)
C10	1946.4(10)	4983.8(11)	5507.0(11)	18.0(3)
C6	1160.8(12)	7050.6(12)	4555.6(12)	21.8(3)
C7	1954.0(12)	7624.1(12)	5705.8(13)	23.3(3)
C13B	2245(7)	199(4)	3196(4)	32.8(11)
O1	-459.3(8)	5661.5(8)	2279.5(8)	23.3(2)
C3	-513.5(11)	3129.5(12)	2082.4(11)	20.6(3)
C2	-91.9(12)	3152.9(12)	1038.3(12)	23.5(3)
C1	194.8(15)	3191.1(14)	155.9(13)	32.4(3)
C14	1383.3(17)	-266.0(17)	1853.4(19)	46.9(4)
C13A	1674(8)	23(4)	3184(4)	32.9(13)

Table S2 Anisotropic Displacement Parameters ($\text{\AA}^2 \times 10^3$) for compound **2**. The Anisotropic displacement factor exponent takes the form: $-2\pi^2[h^2a^{*2}U_{11}+2hka^*b^*U_{12}+\dots]$.

Atom	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
N1	17.3(5)	17.3(5)	14.1(5)	0.8(4)	4.1(4)	-0.5(3)
N2	20.0(5)	18.5(5)	16.1(5)	0.6(4)	5.0(4)	0.5(4)
O2	37.8(5)	21.9(5)	34.0(5)	8.0(4)	9.8(4)	-0.9(4)
C5	16.8(5)	19.5(6)	17.7(6)	0.0(4)	7.7(5)	-0.6(4)
O3	76.1(8)	22.7(5)	23.3(5)	1.2(4)	17.5(5)	18.6(5)
C9	19.3(5)	23.3(6)	17.5(6)	-0.9(4)	6.0(5)	-1.3(4)
C4	18.1(5)	18.9(6)	16.7(5)	2.7(4)	7.4(4)	1.3(4)
C8	22.2(6)	25.6(7)	21.3(6)	-7.1(5)	9.4(5)	-7.0(5)
C11	18.5(5)	19.1(6)	15.7(5)	2.0(4)	6.0(4)	-0.5(4)
C12	24.0(6)	19.1(6)	17.2(6)	0.7(4)	-0.6(5)	-0.5(4)
C10	17.2(5)	19.9(6)	17.6(5)	0.5(4)	8.2(4)	-0.4(4)
C6	22.2(6)	20.0(6)	23.0(6)	1.6(5)	9.4(5)	0.4(4)
C7	26.3(6)	17.4(6)	28.3(6)	-2.8(5)	13.7(5)	-3.3(5)
C13B	48(3)	18.6(14)	38.4(16)	-1.3(11)	25.2(18)	6.4(16)
O1	25.4(4)	21.6(5)	17.8(4)	4.0(3)	4.3(3)	4.4(3)
C3	19.7(5)	22.6(6)	15.2(5)	-0.3(4)	3.1(4)	-3.1(4)
C2	25.2(6)	22.8(6)	17.9(6)	-1.1(4)	4.6(5)	-3.2(5)
C1	39.2(7)	36.6(8)	22.7(6)	-5.4(5)	14.3(6)	-9.6(6)
C14	45.3(9)	38.6(9)	60.0(11)	-23.2(8)	25.2(8)	-4.5(7)
C13A	36(3)	20.4(18)	36.6(19)	-3.0(14)	9.3(19)	6.5(17)

Table S3 Bond Lengths for compound **2**.

Atom	Atom	Length/Å	Atom	Atom	Length/Å
N1	C4	1.4007(15)	O3	C13A	1.509(5)
N1	C11	1.3810(15)	C9	C8	1.3815(18)
N1	C3	1.4807(14)	C9	C10	1.4029(16)
N2	C11	1.2907(16)	C4	O1	1.2225(14)
N2	C10	1.3919(16)	C8	C7	1.4003(18)
O2	C12	1.1973(16)	C11	C12	1.5174(16)
C5	C4	1.4589(16)	C6	C7	1.3818(18)
C5	C10	1.4035(16)	C13B	C14	1.514(5)
C5	C6	1.4036(17)	C3	C2	1.4635(17)
O3	C12	1.3203(17)	C2	C1	1.186(2)
O3	C13B	1.484(3)	C14	C13A	1.450(5)

Table S4 Bond Angles for compound **2**.

Atom	Atom	Atom	Angle/°	Atom	Atom	Atom	Angle/°
C4	N1	C3	116.06(9)	N2	C11	N1	125.69(11)
C11	N1	C4	121.04(9)	N2	C11	C12	115.07(10)
C11	N1	C3	122.73(10)	O2	C12	O3	126.94(12)
C11	N2	C10	117.20(10)	O2	C12	C11	122.91(12)
C10	C5	C4	119.64(11)	O3	C12	C11	110.06(10)
C10	C5	C6	120.25(11)	N2	C10	C5	121.83(10)

C6	C5	C4	120.11(10)	N2	C10	C9	118.86(10)
C12	O3	C13B	122.66(18)	C9	C10	C5	119.31(11)
C12	O3	C13A	108.0(3)	C7	C6	C5	119.81(11)
C8	C9	C10	119.88(11)	C6	C7	C8	119.93(11)
N1	C4	C5	114.53(10)	O3	C13B	C14	105.3(3)
O1	C4	N1	120.24(10)	C2	C3	N1	112.94(10)
O1	C4	C5	125.23(11)	C1	C2	C3	177.01(14)
C9	C8	C7	120.81(11)	C14	C13A	O3	107.3(4)
N1	C11	C12	119.19(10)				

X-ray crystallographic analysis of Ethyl 3-((1-(2-fluorophenyl)-1H-1,2,3-triazol-4-yl)methyl)-4-oxo-3,4-dihydroquinazoline-2-carboxylate (5c)

Table S5 Fractional Atomic Coordinates ($\times 10^4$) and Equivalent Isotropic Displacement Parameters ($\text{\AA}^2 \times 10^3$) for compound **5c**. U_{eq} is defined as 1/3 of of the trace of the orthogonalised U_{ij} tensor

Atom	<i>x</i>	<i>y</i>	<i>z</i>	U(eq)
F1	9616.7(7)	1212.8(4)	4005.8(12)	28.0(2)
O2	3785.4(8)	321.8(5)	2327.8(13)	20.1(2)
O3	5647.2(7)	2316.3(5)	6080.9(13)	19.6(2)
O1	2074.2(7)	563.4(4)	2758.7(13)	20.1(2)
N2	4425.8(8)	1545.4(5)	4532.3(14)	14.6(2)
N5	7365.0(9)	1125.2(5)	2647.2(15)	16.0(2)

N1	2675.0(9)	1855.8(5)	2679.9(15)	16.4(2)
C10	3967.1(10)	2716.7(6)	4156.6(17)	16.4(3)
N3	6538.7(10)	358.0(5)	3852.2(16)	21.4(2)
C4	3400.2(10)	1412.3(6)	3397.2(17)	15.0(3)
C11	4751.1(10)	2205.0(6)	5022.8(17)	15.7(3)
C9	4227.6(11)	3397.9(6)	4432.1(18)	18.8(3)
N4	7300.9(10)	456.7(6)	2885.6(17)	22.5(3)
C12	5232.7(10)	1018.5(6)	5334.3(17)	15.4(2)
C13	6123.6(10)	958.2(6)	4243.2(17)	15.1(2)
C20	7639.5(11)	1660.9(6)	-209.3(18)	19.0(3)
C3	3130.9(10)	694.9(6)	2793.2(17)	16.6(3)
C16	9210.1(11)	1431.2(6)	2259.1(19)	19.6(3)
C8	3493.5(12)	3878.2(6)	3559.7(18)	21.4(3)
C5	2953.8(10)	2524.2(6)	3014.4(17)	16.6(3)
C7	2477.2(12)	3686.0(7)	2423.0(19)	22.7(3)
C15	8075.6(10)	1405.4(6)	1554.2(18)	16.5(3)
C2	1694.7(11)	-96.7(7)	2047(2)	23.7(3)
C17	9928.0(11)	1682.2(7)	1229(2)	23.4(3)
C14	6652.3(10)	1452.0(6)	3487.3(18)	17.4(3)
C6	2203.5(11)	3018.4(7)	2153.5(18)	19.7(3)
C19	8344.1(12)	1928.7(7)	-1255.9(19)	23.1(3)
C18	9482.3(12)	1932.1(7)	-538(2)	24.6(3)
C1	572.1(12)	-199.6(7)	2475(2)	28.7(3)

Table S6 Anisotropic Displacement Parameters ($\text{\AA}^2 \times 10^3$) for compound **5c**. The Anisotropic displacement factor exponent takes the form: $-2\pi^2[h^2a^2U_{11}+2hka*b*U_{12}+\dots]$

Atom	U ₁₁	U ₂₂	U ₃₃	U ₂₃	U ₁₃	U ₁₂
F1	22.3(4)	33.3(5)	26.6(4)	7.4(3)	1.4(3)	1.0(3)
O2	22.4(5)	17.0(4)	22.1(5)	-1.3(3)	7.3(4)	3.0(3)
O3	18.0(4)	17.3(4)	23.5(5)	-3.2(3)	4.4(4)	-1.1(3)
O1	16.3(4)	14.5(4)	28.8(5)	-2.9(4)	3.3(4)	-2.0(3)
N2	14.4(5)	13.0(5)	17.5(5)	0.2(4)	5.6(4)	0.6(4)
N5	16.0(5)	12.0(5)	21.1(5)	-0.3(4)	6.7(4)	0.3(4)
N1	17.0(5)	15.3(5)	18.4(5)	0.2(4)	7.0(4)	0.9(4)
C10	19.8(6)	15.4(6)	16.9(6)	0.0(4)	10.0(5)	0.2(5)
N3	24.2(6)	14.2(5)	29.5(6)	-0.3(4)	14.2(5)	0.3(4)
C4	15.2(6)	15.7(6)	15.8(6)	0.3(4)	6.8(4)	-0.7(4)
C11	19.0(6)	14.3(6)	16.4(6)	-1.0(4)	9.6(5)	-0.9(5)
C9	24.1(6)	16.1(6)	19.0(6)	-0.9(5)	10.8(5)	-0.2(5)
N4	26.4(6)	13.1(5)	32.7(6)	0.3(4)	16.5(5)	0.5(4)
C12	15.6(6)	13.5(6)	17.7(6)	2.0(4)	5.0(4)	1.7(4)
C13	14.3(5)	14.4(6)	16.5(6)	0.8(4)	3.4(4)	0.9(4)
C20	18.7(6)	16.2(6)	22.5(6)	-1.1(5)	5.5(5)	1.2(5)
C3	18.1(6)	15.5(6)	15.8(6)	0.5(4)	3.1(4)	-0.4(5)
C16	19.6(6)	15.7(6)	23.1(6)	1.4(5)	4.0(5)	1.9(5)
C8	32.5(7)	13.9(6)	21.4(6)	0.7(5)	13.7(5)	1.1(5)
C5	19.4(6)	16.1(6)	17.0(6)	0.7(5)	9.9(5)	2.0(5)
C7	29.5(7)	18.7(6)	22.8(6)	4.8(5)	12.0(5)	8.3(5)
C15	17.5(6)	12.7(6)	21.5(6)	-1.7(4)	9.4(5)	0.3(4)

C2	22.8(6)	14.8(6)	30.5(7)	-4.6(5)	-0.5(5)	-1.6(5)
C17	17.3(6)	19.6(6)	35.4(8)	0.8(5)	10.1(5)	-0.3(5)
C14	17.4(6)	13.2(6)	23.1(6)	0.6(5)	7.8(5)	2.7(4)
C6	20.6(6)	19.9(6)	20.1(6)	2.1(5)	7.5(5)	4.0(5)
C19	30.7(7)	17.6(6)	22.8(6)	3.1(5)	10.2(5)	3.2(5)
C18	27.2(7)	18.2(6)	33.5(8)	2.4(5)	17.7(6)	0.4(5)
C1	26.2(7)	19.1(7)	40.0(8)	-2.3(6)	5.3(6)	-6.3(5)

Table S7 Bond Lengths for compound **5c**

Atom	Atom	Length/Å	Atom	Atom	Length/Å
F1	C16	1.3456(16)	N3	N4	1.3131(15)
O2	C3	1.2039(16)	N3	C13	1.3607(16)
O3	C11	1.2270(16)	C4	C3	1.5172(17)
O1	C3	1.3272(15)	C9	C8	1.3796(19)
O1	C2	1.4595(15)	C12	C13	1.5023(16)
N2	C4	1.3829(16)	C13	C14	1.3675(17)
N2	C11	1.4031(16)	C20	C15	1.3884(18)
N2	C12	1.4821(15)	C20	C19	1.3894(19)
N5	N4	1.3530(15)	C16	C15	1.3857(18)
N5	C15	1.4283(16)	C16	C17	1.3808(19)
N5	C14	1.3500(16)	C8	C7	1.402(2)
N1	C4	1.2892(17)	C5	C6	1.4077(18)
N1	C5	1.3890(16)	C7	C6	1.381(2)
C10	C11	1.4570(18)	C2	C1	1.503(2)
C10	C9	1.4044(18)	C17	C18	1.389(2)

C10	C5	1.4011(18)	C19	C18	1.391(2)
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Table S8 Bond Angles for compound **5c**

Atom	Atom	Atom	Angle/°	Atom	Atom	Atom	Angle/°
C3	O1	C2	115.09(10)	C14	C13	C12	129.07(11)
C4	N2	C11	120.64(10)	C15	C20	C19	119.78(12)
C4	N2	C12	123.49(10)	O2	C3	O1	126.25(12)
C11	N2	C12	115.86(10)	O2	C3	C4	123.45(11)
N4	N5	C15	121.42(10)	O1	C3	C4	110.19(10)
C14	N5	N4	110.89(10)	F1	C16	C15	118.78(12)
C14	N5	C15	127.63(10)	F1	C16	C17	119.37(12)
C4	N1	C5	117.79(11)	C17	C16	C15	121.84(13)
C9	C10	C11	120.58(12)	C9	C8	C7	119.93(12)
C5	C10	C11	119.41(11)	N1	C5	C10	121.70(11)
C5	C10	C9	120.00(12)	N1	C5	C6	118.86(12)
N4	N3	C13	109.26(10)	C10	C5	C6	119.43(12)
N2	C4	C3	118.19(11)	C6	C7	C8	120.67(12)
N1	C4	N2	125.33(11)	C20	C15	N5	120.58(11)
N1	C4	C3	116.26(11)	C16	C15	N5	120.04(12)
O3	C11	N2	120.13(11)	C16	C15	C20	119.37(12)
O3	C11	C10	124.89(11)	O1	C2	C1	106.74(11)
N2	C11	C10	114.97(11)	C16	C17	C18	118.22(12)
C8	C9	C10	120.10(13)	N5	C14	C13	104.71(11)
N3	N4	N5	106.74(10)	C7	C6	C5	119.85(13)
N2	C12	C13	110.66(10)	C20	C19	C18	119.76(13)

N3	C13	C12	122.54(11)	C17	C18	C19	120.99(12)
N3	C13	C14	108.39(11)				

Table S9 Hydrogen Atom Coordinates ($\text{\AA}\times 10^4$) and Isotropic Displacement Parameters ($\text{\AA}^2\times 10^3$) for compound **5c**

Atom	<i>x</i>	<i>y</i>	<i>z</i>	U(eq)
H9	4910	3528	5220	23
H12A	4843	585	5317	18
H12B	5573	1129	6647	18
H20	6862	1653	-699	23
H8	3676	4339	3729	26
H7	1972	4018	1832	27
H2A	2217	-446	2660	28
H2B	1644	-119	686	28
H17	10706	1684	1717	28
H14	6542	1921	3541	21
H6	1510	2893	1389	24
H19	8049	2109	-2457	28
H18	9962	2108	-1268	30
H1A	64	148	1858	43
H1B	634	-174	3825	43
H1C	286	-640	2021	43

Table S10 Crystal data and structure refinement for compounds **2** and **5c**.

Identification code	2	5c
Empirical formula	C ₁₄ H ₁₂ N ₂ O ₃	C ₂₀ H ₁₆ N ₅ O ₃ F
Temperature/K	100	100
Crystal system	Monoclinic	Monoclinic
Space group	P2 ₁ /n	P2 ₁ /c
Unit cell dimensions	a = 11.30704(18) Å, b = 10.56186(12) Å, c = 11.46113(18) Å, α = 90°, β = 115.0059(19)°, γ = 90°	a = 12.36164(16) Å, b = 20.0007(2) Å, c = 7.35270(9) Å, α = 90°, β = 102.6170(13)°, γ = 90°
Volume	1240.43(4) Å ³	1774.00(4) Å ³
Z	4	4
Calculated density (ρ _{calc})	1.372 g/cm ³	1.473 g/cm ³
Absorption coefficient (μ)	0.814 mm ⁻¹	0.921 mm ⁻¹
F(000)	536.0	816.0
Crystal size	0.5 mm × 0.05 mm × 0.05 mm	0.7 × 0.5 × 0.2 mm ³
Reflections collected	19112	11976
Data/restraints/parameters	2591/0/182	3629/0/263
Goodness-of-fit on F ²	1.037	1.051
Final R indexes [I >= 2σ (I)]	R ₁ = 0.0427, wR ₂ = 0.1155	R ₁ = 0.0399, wR ₂ = 0.1031
Final R indexes [all data]	R ₁ = 0.0488, wR ₂ = 0.1237	R ₁ = 0.0436, wR ₂ = 0.1074
Largest diff. peak/hole	0.22/-0.27 e Å ⁻³	0.27/-0.25 e Å ⁻³

Table S11 *In silico* ADME prediction data of the title compounds (**5a–q**).

Compd	MW ^a	SASA	PSA	NRB	HBD ^b	HBA ^c	QP log P o/w ^d	QPlogS ^e	QP log Khsa ^f	QP log BB ^g	VLR5	%HOA ^h
5a	375.38	679.855	93.977	4.00	0.00	8.00	2.790	-4.260	-0.293	-0.783	0	100
5b	409.83	695.861	91.430	4.00	0.00	8.00	3.259	-4.814	-0.192	-0.554	0	100
5c	393.37	685.159	92.972	4.00	0.00	8.00	2.996	-4.514	-0.259	-0.658	0	100
5d	389.41	700.262	90.193	4.00	0.00	8.00	3.131	-4.647	-0.158	-0.660	0	100
5e	405.41	712.625	100.044	5.00	0.00	8.75	2.839	-4.326	-0.337	-0.820	0	100
5f	420.38	708.418	130.747	5.00	0.00	9.00	2.193	-4.115	-0.423	-1.589	1	69
5g	409.83	703.976	93.977	4.00	0.00	8.00	3.296	-5.030	-0.164	-0.630	0	100
5h	393.37	688.530	93.977	4.00	0.00	8.00	3.024	-4.627	-0.248	-0.678	0	100
5i	389.41	712.243	93.977	4.00	0.00	8.00	3.118	-4.874	-0.117	-0.812	0	100
5j	405.41	706.853	102.995	5.00	0.00	8.75	2.761	-4.217	-0.355	-0.853	0	100
5k	420.38	721.890	141.554	5.00	0.00	9.00	2.032	-4.371	-0.375	-2.015	1	62
5l	409.83	703.954	93.977	4.00	0.00	8.00	3.296	-5.029	-0.164	-0.630	0	100
5m	393.37	688.516	93.977	4.00	0.00	8.00	3.024	-4.627	-0.248	-0.678	0	100
5n	389.41	712.059	93.977	4.00	0.00	8.00	3.116	-4.871	-0.118	-0.812	0	95
5o	405.41	715.461	102.059	5.00	0.00	8.75	2.837	-4.380	-0.322	-0.867	0	100
5p	420.38	724.784	148.449	5.00	0.00	9.00	1.910	-4.425	-0.332	-2.330	1	57
5q	419.39	726.372	146.595	5.00	1.00	10.00	2.374	-4.907	-0.361	-2.116	0	65

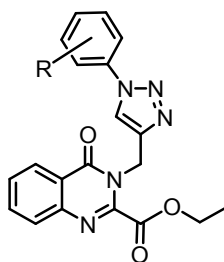
^aMolecular weight(130.0/725.0), ^bNo. of H-bond donor groups (0/6), ^cNo. of H-bond acceptor groups (2/20), ^doctanol/water partition coefficient (-2.0/6.5), ^epredicted aqueous solubility (-6.5/0.5), ^fprediction of binding to human serum albumin (-1.5/1.5), ^gpredicted brain/blood partition coefficient (-3.0/1.2), ^h% Human Oral Absorption in GI (<25% is poor); The values in bracket signify Range for 95% of drugs.

Table S12 *In silico* ADME prediction data of compounds (6a–q).

Compd	MW ^a	SASA	PSA	NRB	HBD ^b	HBA ^c	QP log P o/w ^d	QPlogS ^e	QP log Khsa ^f	QP log BB ^g	VLR5	%HOA ^h
6a	347.33	601.932	115.398	3.00	1.00	8.00	2.312	-3.874	-0.382	-1.279	0	72
6b	381.77	590.898	108.709	3.00	1.00	8.00	2.570	-3.939	-0.383	-0.944	0	76
6c	365.32	580.209	110.252	3.00	1.00	8.00	2.318	-3.665	-0.439	-1.037	0	80
6d	361.36	594.823	107.471	3.00	1.00	8.00	2.437	-3.755	-0.353	-1.052	0	76
6e	377.35	607.644	117.323	4.00	1.00	8.75	2.188	-3.537	-0.491	-1.212	0	73
6f	392.33	603.449	148.018	4.00	1.00	9.00	1.565	-3.378	-0.554	-1.882	1	45
6g	381.77	599.023	111.256	3.00	1.00	8.00	2.599	-4.137	-0.363	-1.017	0	75
6h	365.32	583.578	111.256	3.00	1.00	8.00	2.343	-3.770	-0.431	-1.055	0	74
6i	361.36	607.289	111.256	3.00	1.00	8.00	2.413	-3.963	-0.324	-1.204	0	74
6j	377.35	603.714	120.269	4.00	1.00	8.75	2.153	-3.472	-0.489	-1.228	0	73
6k	392.33	616.936	158.832	4.00	1.00	9.00	1.390	-3.601	-0.520	-2.278	1	38
6l	381.77	599.141	111.256	3.00	1.00	8.00	2.600	-4.140	-0.363	-1.017	0	75
6m	365.32	583.575	111.256	3.00	1.00	8.00	2.342	-3.770	-0.431	-1.055	0	74
6n	361.35	607.274	111.256	3.00	1.00	8.00	2.413	-3.963	-0.324	-1.204	0	74
6o	377.35	611.874	118.940	4.00	1.00	8.75	2.200	-3.607	-0.472	-1.257	0	73
6p	392.33	618.820	159.698	4.00	1.00	9.00	1.393	-3.632	-0.513	-2.305	1	37
6q	391.34	619.932	161.935	4.00	2.00	10.00	1.497	-3.555	-0.756	-2.324	0	40

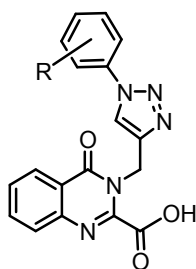
^aMolecular weight(130.0/725.0), ^bNo. of H-bond donor groups (0/6), ^cNo. of H-bond acceptor groups (2/20), ^doctanol/water partition coefficient (-2.0/6.5), ^epredicted aqueous solubility (-6.5/0.5), ^fprediction of binding to human serum albumin (-1.5/1.5), ^gpredicted brain/blood partition coefficient (-3.0/1.2), ^h% Human Oral Absorption in GI (<25% is poor); The values in bracket signify Range for 95% of drugs.

Table S13 Physico-chemical properties of compounds (**5a-q**).



Comp.	R	Mol. Formula	Mol. Weight	Melting Point (°C)	Yield (%)
5a	H	C ₂₀ H ₁₇ N ₅ O ₃	375.38	104–105	92
5b	<i>o</i> -Cl	C ₂₀ H ₁₆ ClN ₅ O ₃	409.83	132–133	89
5c	<i>o</i> -F	C ₂₀ H ₁₆ FN ₅ O ₃	393.37	106	93
5d	<i>o</i> -CH ₃	C ₂₁ H ₁₉ N ₅ O ₃	389.41	124–125	88
5e	<i>o</i> -OCH ₃	C ₂₁ H ₁₉ N ₅ O ₄	405.41	154–156	89
5f	<i>o</i> -NO ₂	C ₂₀ H ₁₆ N ₆ O ₅	420.38	110–112	91
5g	<i>m</i> -Cl	C ₂₀ H ₁₆ ClN ₅ O ₃	409.83	126–127	96
5h	<i>m</i> -F	C ₂₀ H ₁₆ FN ₅ O ₃	393.37	151–153	97
5i	<i>m</i> -CH ₃	C ₂₁ H ₁₉ N ₅ O ₃	389.41	99–101	93
5j	<i>m</i> -OCH ₃	C ₂₁ H ₁₉ N ₅ O ₄	405.41	85–87	94
5k	<i>m</i> -NO ₂	C ₂₀ H ₁₆ N ₆ O ₅	420.38	147–148	95
5l	<i>p</i> -Cl	C ₂₀ H ₁₆ ClN ₅ O ₃	409.83	151–152	94
5m	<i>p</i> -F	C ₂₀ H ₁₆ FN ₅ O ₃	393.37	125–126	97
5n	<i>p</i> -CH ₃	C ₂₁ H ₁₉ N ₅ O ₃	389.41	109–111	89
5o	<i>p</i> -OCH ₃	C ₂₁ H ₁₉ N ₅ O ₄	405.41	125–127	87
5p	<i>p</i> -NO ₂	C ₂₀ H ₁₆ N ₆ O ₅	420.38	164–166	93
5q	<i>p</i> -COOH	C ₂₁ H ₁₇ N ₅ O ₅	419.39	242–244	91

Table S14 Physico-chemical properties of compounds (**6a-q**).



Comp.	R	Mol. Formula	Mol. Weight	Melting Point (°C)	Yield (%)
6a	H	C ₁₈ H ₁₃ N ₅ O ₃	347.33	154–156	89
6b	<i>o</i> -Cl	C ₁₈ H ₁₂ ClN ₅ O ₃	381.77	137–138	81
6c	<i>o</i> -F	C ₁₈ H ₁₂ FN ₅ O ₃	365.32	170–172	55
6d	<i>o</i> -CH ₃	C ₁₉ H ₁₅ N ₅ O ₃	361.35	140–142	56
6e	<i>o</i> -OCH ₃	C ₁₉ H ₁₅ N ₅ O ₄	377.35	122–123	59
6f	<i>o</i> -NO ₂	C ₁₈ H ₁₂ N ₆ O ₅	392.32	198–200	87
6g	<i>m</i> -Cl	C ₁₈ H ₁₂ ClN ₅ O ₃	381.77	147–149	78
6h	<i>m</i> -F	C ₁₈ H ₁₂ FN ₅ O ₃	365.32	131–133	56
6i	<i>m</i> -CH ₃	C ₁₉ H ₁₅ N ₅ O ₃	361.35	111–113	83
6j	<i>m</i> -OCH ₃	C ₁₉ H ₁₅ N ₅ O ₄	377.35	128–130	76
6k	<i>m</i> -NO ₂	C ₁₈ H ₁₂ N ₆ O ₅	392.32	162–164	81
6l	<i>p</i> -Cl	C ₁₈ H ₁₂ ClN ₅ O ₃	381.77	201–203	81
6m	<i>p</i> -F	C ₁₈ H ₁₂ FN ₅ O ₃	365.32	180–182	72
6n	<i>p</i> -CH ₃	C ₁₉ H ₁₅ N ₅ O ₃	361.35	186–188	71
6o	<i>p</i> -OCH ₃	C ₁₉ H ₁₅ N ₅ O ₄	377.35	172–174	85
6p	<i>p</i> -NO ₂	C ₁₈ H ₁₂ N ₆ O ₅	392.32	231–233	64
6q	<i>p</i> -COOH	C ₁₉ H ₁₃ N ₅ O ₅	391.34	273–275	64