

Supporting Information

Synthesis and Discovery of Pyrazine-Pyridine Biheteroaryl as a Novel Series of Potent Vascular Endothelial Growth Factor Receptor-2 (VEGFR-2) Inhibitors

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Elemental Analyses Data

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Compd	Formula	Elemental Analyses
3	C ₁₅ H ₁₅ N ₃ O ₂ Cl ₂	Calc C, 52.96; H, 4.44; N, 12.35 Found C, 52.91; H, 4.43; N, 12.23
5	C ₁₀ H ₁₃ N ₂ O ₂ Br	Calc C, 43.98; H, 4.80; N, 10.26 Found C, 43.88; H, 4.52; N, 10.20
6	C ₁₉ H ₃₃ N ₂ O ₃ BrSi	Calc C, 51.23; H, 7.47; N, 6.29 Found C, 51.45; H, 7.47; N, 6.53
8	C ₁₈ H ₁₈ N ₅ OCl·0.2H ₂ O	Calc C, 60.15; H, 5.16; N, 19.48 Found C, 60.31; H, 5.10; N, 19.15
11	C ₁₂ H ₁₀ N ₃ O ₂ Cl	Calc C, 54.66; H, 3.82; N, 15.94 Found C, 54.62; H, 3.77; N, 15.57
12	C ₁₈ H ₁₅ N ₄ O ₂ Cl	Calc C, 60.94; H, 4.26; N, 15.79 Found C, 60.54; H, 4.33; N, 15.58
13	C ₂₁ H ₁₉ N ₄ O ₄ Cl	Calc C, 59.09; H, 4.49; N, 13.13 Found C, 58.82; H, 4.38; N, 12.98
14	C ₂₅ H ₂₈ N ₅ O ₄ Cl	Calc C, 60.30; H, 5.67; N, 14.06 Found C, 60.14; H, 5.49; N, 13.91
15	C ₁₈ H ₁₈ N ₅ OCl·0.5 H ₂ O	Calc C, 59.26; H, 5.25; N, 19.20 Found C, 59.30; H, 4.95; N, 18.95
16	C ₁₂ H ₁₀ N ₃ O ₂ Cl	Calc C, 54.66; H, 3.82; N, 15.94 Found C, 54.78; H, 3.76; N, 15.54
17	C ₁₈ H ₁₅ N ₄ O ₂ Cl	Calc C, 60.94; H, 4.26; N, 15.79 Found C, 61.07; H, 4.24; N, 15.60
19	C ₂₅ H ₂₈ N ₅ O ₄ Cl	Calc C, 60.30; H, 5.67; N, 14.06 Found C, 60.69; H, 5.80; N, 13.73
20	C ₁₈ H ₁₈ N ₅ OCl·0.2 H ₂ O	Calc C, 60.15; H, 5.16; N, 19.48 Found C, 60.09; H, 5.56; N, 19.45
25	C ₁₈ H ₁₈ N ₅ OCl·0.5 H ₂ O	Calc C, 59.26; H, 5.25; N, 19.20 Found C, 59.49; H, 5.22; N, 18.97
26	C ₁₂ H ₁₀ N ₃ O ₂ Br	Calc C, 46.77; H, 3.27; N, 13.64 Found C, 46.86; H, 3.28; N, 13.56
29	C ₂₅ H ₂₈ N ₅ O ₄ Cl	Calc C, 60.30; H, 5.67; N, 14.06 Found C, 59.91; H, 5.70; N, 13.66
30	C ₁₈ H ₁₈ N ₅ OCl·0.4 H ₂ O	Calc C, 59.55; H, 5.22; N, 19.29 Found C, 59.22; H, 5.36; N, 19.57
32	C ₁₀ H ₇ N ₃ Cl·0.13H ₂ O	Calc C, 49.54; H, 3.02; N, 17.33 Found C, 49.38; H, 2.86; N, 17.22
36	C ₂₁ H ₂₀ N ₅ O ₄ Cl	Calc C, 57.08; H, 4.56; N, 15.85 Found C, 57.02; H, 4.46; N, 15.41
40	C ₁₉ H ₃₃ N ₂ O ₃ BrSi	Calc C, 51.23; H, 7.47; N, 6.29 Found C, 51.15; H, 7.80; N, 6.24
42	C ₁₈ H ₁₈ N ₅ OCl·0.55 H ₂ O	Calc C, 59.11; H, 5.26; N, 19.15

		Found C, 59.46; H, 4.99; N, 18.78
46	C ₂₂ H ₄₂ N ₂ O ₃ SiSn	Calc C, 49.92; H, 8.00; N, 5.29 Found C, 50.32; H, 7.88; N, 5.20
47	C ₁₈ H ₁₈ N ₅ OCl·0.3 H ₂ O	Calc C, 59.85; H, 5.19; N, 19.39 Found C, 60.03; H, 5.08; N, 19.20
51	C ₁₈ H ₁₈ N ₅ OCl·0.6 H ₂ O	Calc C, 58.97; H, 5.28; N, 19.10 Found C, 58.94; H, 5.53; N, 19.20
53	C ₂₂ H ₂₁ N ₄ O ₄ Cl	Calc C, 59.93; H, 4.80; N, 12.71 Found C, 60.03; H, 4.67; N, 12.45
54	C ₂₅ H ₂₈ N ₅ O ₄ Cl	Calc C, 60.30; H, 5.67; N, 14.06 Found C, 60.16; H, 5.61; N, 13.81
55	C ₁₈ H ₁₈ N ₅ OCl·0.24 H ₂ O	Calc C, 60.03; H, 5.17; N, 19.45 Found C, 60.43; H, 5.24; N, 19.13
57	C ₈ H ₁₁ BrN ₂ O ₂ S	Calc C, 34.42; H, 3.97; N, 10.04 Found C, 34.59; H, 3.95; N, 9.92
58	C ₁₇ H ₃₁ BrN ₂ O ₃ SSi	Calc C, 45.22; H, 6.92; N, 6.20 Found C, 45.08; H, 6.72; N, 6.12
59	C ₁₆ H ₁₆ N ₅ OClS	Calc C, 53.11; H, 4.46; N, 19.35 Found C, 53.41; H, 4.27; N, 19.22
60	C ₁₈ H ₁₇ ClN ₄ O ₃ ·0.4 H ₂ O	Calc C, 56.89; H, 4.72; N, 14.74 Found C, 57.01; H, 4.72; N, 14.52
62	C ₁₆ H ₁₆ ClN ₅ O ₂ ·1.1 H ₂ O	Calc C, 52.56; H, 5.02; N, 19.16 Found C, 52.61; H, 4.65; N, 18.85