Supporting Information

Rapid Synthesis of 3-Amino-imidazopyridines by a Microwave-Assisted Four-Component Coupling in One Pot

Erin F. DiMauro* and Joseph M. Kennedy

*Department of Medicinal Chemistry, Amgen Inc., One Kendall Square, Bldg. 1000,
Cambridge, MA 02139*

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General Considerations

Unless otherwise noted, all materials were obtained from commercial suppliers and used without further purification. Microwave reactions were performed in a Biotage Initiator™ using 2-5 mL sealed vials in an atmosphere of dry nitrogen. Reported reaction temperatures were preset and were measured and maintained within 1 °C by the instrument via infrared exterior surface temperature sensor. Reaction times are reported as hold time at final temp (ramp time was 2 – 5 °/sec). Reactions were monitored using LCMS with UV detection at 254 nm and a low resonance electrospray mode (ESI). Preparative reversed-phase HPLC was performed on a C18, 150 x 30 mm I.D. column, eluting with a binary solvent system A and B using a gradient elution (A: H₂O with 0.1% TFA; B: CH₃CN with 0.1% TFA) with UV detection at 254 nm. Purity was measured using HPLC with UV detection at 254 nm (15 min; 1.5 mL/min flow rate; 0 to 100% 0.1% TFA in CH₃CN / 100 – 0% 0.1% TFA in H₂O). ¹H NMR spectra were recorded on a 400 MHz spectrometer at ambient temperature. Chemical shifts are reported in ppm from the solvent resonance (DMSO-d₆ 2.49 ppm). Data are reported as follows: chemical shift, multiplicity (s = singlet, d = doublet, t = triplet, q = quartet, br = broad, m = multiplet), coupling constants, and number of protons. Proton decoupled ¹³C NMR spectra were recorded on a AV-400 (100 MHz) spectrometer at ambient temperature. Chemical shifts are reported in ppm from tetramethylsilane (0 ppm) or from the solvent resonance. Mass spectra were obtained on a high resonance Electrospray Time-of-Flight mass spectrometer.

Analytical Data

***N*-benzyl-6-(3-methoxyphenyl)-2-phenyl-imidazo[1,2-*a*]pyridin-3-amine (1a):** 0.214 g (58.0%), brown solid. HPLC: 100.0%; HRMS: Calcd for [C₂₇H₂₄N₃O]⁺: 406.19139, Found: 406.19255; ¹H NMR (400 MHz, DMSO-*d*₆): δ 8.38 (s, 1H), 8.23 (d, *J* = 7.2 Hz, 2H), 7.53-7.39 (m, 5H), 7.33-7.15 (m, 8H), 6.97 (dd, *J* = 8.1, 2.4 Hz, 1H), 5.50 (t, *J* = 6.4 Hz, 1H), 4.15 (d, *J* = 6.3 Hz, 2H), 3.85 (s, 3H); ¹³C NMR (100 MHz, DMSO-*d*₆): δ 159.8, 140.0, 139.7, 138.4, 134.5, 134.3, 130.1, 128.4, 128.2, 128.1, 127.3, 127.1, 126.9, 126.4, 124.0, 123.7, 120.3, 118.7, 116.7, 112.9, 112.0, 55.2, 51.5

***N*-benzyl-6-(3-methoxyphenyl)-2-(pyridin-3-yl)-imidazo[1,2-*a*]pyridin-3-amine (1b):** 0.200 g (54.1%), yellow solid. HPLC: 100.0%; HRMS: Calcd for [C₂₆H₂₃N₄O]⁺: 407.18664, Found: 407.19059; ¹H NMR (400 MHz, DMSO-*d*₆): δ 9.36 (s, 1H), 8.51-8.46 (m, 2H), 8.41 (s, 1H), 7.58-7.40 (m, 4H), 7.31-7.17 (m, 7H), 6.89 (dd, *J* = 8.1, 2.7 Hz, 1H), 5.61 (t, *J* = 6.3 Hz, 1H), 4.16 (d, *J* = 6.3 Hz, 2H), 3.86 (s, 3H); ¹³C NMR (100 MHz, DMSO-*d*₆): δ 159.8, 147.8, 147.7, 147.5, 140.2, 139.8, 138.2, 133.2, 131.9, 130.3, 130.1, 128.2, 128.0, 127.1, 124.3, 124.2, 123.6, 120.4, 118.7, 116.8, 113.1, 112.1, 55.2, 51.6

4-(2-benzyl-3-(benzylamino)-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1c): 0.230 g (60.4%), red solid. HPLC: 91.5%; HRMS: Calcd for $[C_{28}H_{23}N_4]^+$: 415.19172, Found: 415.20254; 1H NMR (400 MHz, DMSO- d_6): δ 8.39 (s, 1H), 7.96 (d, J = 8.3 Hz, 2H), 7.84 (d, J = 8.3 Hz, 2H), 7.50-7.44 (m, 2H), 7.33-7.22 (m, 10H), 5.31 (t, J = 6.2 Hz, 1H), 4.10 (d, J = 6.1 Hz, 2H), 3.93 (s, 2H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 141.8, 140.4, 139.4, 137.2, 132.9, 129.8, 128.7, 128.3, 128.2, 128.1, 127.5, 127.1, 127.0, 125.7, 122.1, 121.9, 121.1, 118.8, 116.7, 109.9, 54.9, 52.0

4-(3-(benzylamino)-2-tert-butyl-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1d): 0.180 g (52.0%), tan solid. HPLC: 97.8%; HRMS: Calcd for $[C_{25}H_{25}N_4]^+$: 381.20737, Found: 381.21260; 1H NMR (400 MHz, DMSO- d_6): δ 8.30 (s, 1H), 7.94 (d, J = 8.3 Hz, 2H), 7.77 (d, J = 8.5 Hz, 2H), 7.52-7.47 (m, 2H), 7.42 (d, J = 8.0 Hz, 2H), 7.35 (t, J = 7.5 Hz, 2H), 7.26 (t, J = 7.2 Hz, 1H), 4.83 (t, J = 6.4 Hz, 1H), 4.13 (d, J = 6.4 Hz, 2H), 1.44 (s, 9H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 146.7, 141.9, 140.4, 138.7, 132.9, 128.3, 128.2, 127.04, 127.02, 125.6, 122.1, 121.9, 121.2, 118.8, 116.7, 109.8, 52.8, 32.9, 30.3

6-benzyl-N-cyclohexyl-2-(pyridin-3-yl)-imidazo[1,2-*a*]pyridin-3-amine (1e): 0.160 g (46.0%), brown solid. HPLC: 92.0%; HRMS: Calcd for $[C_{25}H_{27}N_4]^+$: 383.22302, Found: 383.25062; 1H NMR (400 MHz, DMSO- d_6): δ 9.35 (s, 1H), 8.48-8.47 (m, 2H), 8.18 (s, 1H), 7.47-7.43 (m, 2H), 7.35-7.26 (m, 4H), 7.25-7.22 (m, 1H), 7.10 (d, J = 10.7 Hz, 1H), 4.88 (d, J = 5.6 Hz, 1H), 4.01 (s, 2H), 1.72-1.64 (m, 4H), 1.51 (m, 1H), 1.25-1.11 (m, 6H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 147.54, 147.50, 140.3, 140.1, 133.2, 132.5, 130.6, 128.7, 128.5, 126.5, 126.4, 126.3, 124.9, 123.4, 121.3, 116.7, 56.4, 37.7, 33.5, 25.4, 24.5

6-(2-aminopyrimidin-5-yl)-N-cyclohexyl-2-(4-(trifluoromethyl)phenyl)-imidazo[1,2-*a*]pyridin-3-amine (1f): 0.180 g (43.8%), orange solid. HPLC: 100.0%; HRMS: Calcd for $[C_{24}H_{24}F_3N_6]^+$: 453.20091, Found: 453.20536; 1H NMR (400 MHz, DMSO- d_6): δ 8.64 (s, 2H), 8.60 (s, 1H), 8.46 (d, J = 8.1 Hz, 2H), 7.80 (d, J = 8.3 Hz, 2H), 7.59-7.51 (m, 2H), 6.89 (m, 2H), 4.94 (d, J = 6.7 Hz, 1H), 1.78-1.75 (m, 2H), 1.65 (m, 2H), 1.51 (m, 1H), 1.35 (m, 3H), 1.11 (m, 3H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 163.1, 155.9, 139.8, 138.8, 132.6, 127.9, 126.5, 125.21, 125.17, 123.5, 123.1, 120.2, 119.1, 118.6, 117.3, 57.1, 33.5, 25.3, 24.6

***N*-cyclohexyl-6-(pyridin-4-yl)-2-(4-(trifluoromethyl)phenyl)-imidazo[1,2-*a*]pyridin-3-amine (1g):** 0.220 g (55.4%), gold solid. HPLC: 100.0%; HRMS: Calcd for $[C_{25}H_{24}F_3N_4]^+$: 437.19476, Found: 437.19679; 1H NMR (400 MHz, DMSO- d_6): δ 8.88 (s, 1H), 8.71 (d, J = 5.9 Hz, 2H), 8.47 (d, J = 8.1 Hz, 2H), 7.83-7.80 (m, 4H), 7.70-7.64 (m, 2H), 5.07 (d, J = 7.2 Hz, 1H), 1.79-1.77 (m, 2H), 1.65 (m, 2H), 1.52 (m, 1H), 1.37 (m, 3H), 1.12 (m, 3H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 150.4, 144.0, 140.2, 138.5, 133.0, 128.3, 126.6, 125.8, 125.3, 125.2, 123.2, 121.8, 121.6, 120.8, 117.5, 57.2, 33.6, 25.3, 24.6

***N*-tert-butyl-2-(4-methoxyphenyl)-6-(pyridin-4-yl)-imidazo[1,2-*a*]pyridin-3-amine (1h):** 0.150 g (44.4%), tan solid. HPLC: 96.9%; HRMS: Calcd for $[C_{23}H_{25}N_4O]^+$: 373.20229, Found: 373.20506; 1H NMR (400 MHz, DMSO- d_6): δ 8.84 (s, 1H), 8.69 (d, J = 6.1 Hz, 2H), 8.17 (d, J = 8.7 Hz, 2H), 7.78-7.77 (m, 2H), 7.65-7.58 (m, 2H), 6.99 (d, J = 8.8 Hz, 2H), 4.69 (s, 1H), 3.81 (s, 3H), 1.06 (s, 9H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 158.5, 150.4, 144.2, 140.6, 138.7, 128.9, 127.6, 124.0, 122.5, 122.1, 120.9, 120.6, 116.9, 113.3, 56.0, 55.0, 30.1

6-(2-aminopyrimidin-5-yl)-*N*-tert-butyl-imidazo[1,2-*a*]pyridin-3-amine (1i): Cyclization step was allowed to run for 20 min at 160 °C. 0.148 g (57.7%), red oil. HPLC: 95.1%; HRMS: Calcd for $[C_{15}H_{19}N_6]^+$: 283.16657, Found: 283.16862; 1H NMR (400 MHz, DMSO- d_6): δ 8.60 (s, 2H), 8.50 (s, 1H), 7.49 (d, J = 9.4 Hz, 1H), 7.38 (dd, J

= 9.2 1.5 Hz, 1H), 7.15 (s, 1H), 6.84 (s, 2H), 4.56 (s, 1H), 1.19 (s, 9H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 163.0, 155.9, 139.9, 129.0, 125.2, 121.5, 119.6, 119.4, 118.4, 117.2, 52.7, 29.3

6-(2-aminopyrimidin-5-yl)-2-benzyl-N-tert-butyl-imidazo[1,2-a]pyridin-3-amine (1j): 0.230 g (68.0%), rust solid. HPLC: 99.3%; HRMS: Calcd for $[\text{C}_{22}\text{H}_{25}\text{N}_6]^+$: 373.21352, Found: 373.21592; ^1H NMR (400 MHz, DMSO- d_6): δ 8.56 (s, 2H), 8.46 (s, 1H), 7.42 (d, J = 9.2 Hz, 1H), 7.39 (dd, J = 9.3, 1.6 Hz, 1H), 7.31-7.23 (m, 4H), 7.15 (t, J = 7.1 Hz, 1H), 6.82 (s, 2H), 4.37 (s, 1H), 4.06 (s, 2H), 1.15 (s, 9H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 162.9, 155.8, 140.6, 140.1, 139.6, 128.9, 127.9, 125.6, 125.0, 122.3, 119.5, 119.3, 119.2, 116.6, 55.1, 33.1, 30.0

6-(2-aminopyrimidin-5-yl)-N-(2,4,4-trimethylpentan-2-yl)-imidazo[1,2-a]pyridin-3-amine (1k): Cyclization step was allowed to run for 20 min at 160 °C. 0.200 g (65.0 %), orange solid. HPLC: 100.0 %; HRMS: Calcd for $[\text{C}_{19}\text{H}_{27}\text{N}_6]^+$: 339.22917, Found: 339.23121; ^1H NMR (400 MHz, DMSO- d_6): δ 8.59 (s, 2H), 8.47 (s, 1H), 7.48 (d, J = 9.2 Hz, 1H), 7.36 (dd, J = 9.4, 1.6 Hz, 1H), 7.12 (s, 1H), 6.84 (s, 2H), 4.52 (s, 1H), 1.67 (s, 2H), 1.25 (s, 6H), 1.02 (s, 9H); ^{13}C NMR (100 MHz, DMSO- d_6): δ 163.0, 155.8, 139.4, 129.0, 123.7, 121.1, 119.5, 119.4, 118.3, 117.2, 56.1, 53.1, 31.5, 31.3, 29.1

4-(2-phenyl-3-(2,4,4-trimethylpentan-2-ylamino)-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1l): 0.160 g (41.7%), tan solid. HPLC: 94.4%; HRMS: Calcd for $[\text{C}_{28}\text{H}_{31}\text{N}_4]^+$: 423.25432, Found: 423.25723; ^1H NMR (400 MHz, $\text{DMSO}-d_6$): δ 8.81 (2, 1H), 8.17-8.15 (m, 2H), 8.01 (d, $J = 8.0$ Hz, 2H), 7.95 (d, $J = 8.0$ Hz, 2H), 7.62 (br s, 2H), 7.41 (t, $J = 7.6$ Hz, 2H), 7.31 (t, $J = 7.3$ Hz, 1H), 4.54 (s, 1H), 1.65 (s, 2H), 1.00 (s, 9H), 0.96 (s, 6H); ^{13}C NMR (100 MHz, $\text{DMSO}-d_6$): δ 141.7, 140.5, 139.2, 135.4, 133.1, 127.90, 127.88, 127.1, 127.0, 124.5, 123.2, 122.4, 122.2, 118.8, 117.1, 110.1, 60.3, 55.9, 31.6, 31.3, 28.8

4-(2-tert-butyl-3-(2,4,4-trimethylpentan-2-ylamino)-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1m): 0.210 g (57.4%), brown solid. HPLC: 100.0%; HRMS: Calcd for $[\text{C}_{26}\text{H}_{35}\text{N}_4]^+$: 403.28562, Found: 403.28586; ^1H NMR (400 MHz, $\text{DMSO}-d_6$): δ 8.85 (s, 1H), 8.19 (d, $J = 8.5$ Hz, 2H), 8.08 (d, $J = 8.5$ Hz, 2H), 7.73 (dd, $J = 7.8, 1.6$ Hz, 1H), 7.69 (d, $J = 7.8$ Hz, 1H), 4.13 (s, 1H), 1.91 (s, 2H), 1.65 (s, 9H), 1.40 (s, 6H), 1.27 (s, 9H); ^{13}C NMR (100 MHz, $\text{DMSO}-d_6$): δ 148.7, 142.1, 139.4, 133.1, 126.8, 122.7, 122.6, 122.3, 121.3, 118.8, 116.7, 109.9, 58.3, 56.8, 33.4, 31.8, 31.5, 31.0, 30.1

4-(3-(2,6-dimethylphenylamino)-imidazo[1,2-*a*]pyridin-6-yl)benzonitrile (1o):

0.185 g (60%), red oil. HPLC: 95.0%; HRMS: Calcd for $[C_{22}H_{19}N_4]^+$: 339.16042, Found: 339.16235; 1H NMR (400 MHz, DMSO-*d*₆): δ 8.78 (s, 1H), 8.00 (m, 4H), 7.62 (m, 2H), 7.09 (m, 3H), 6.97 (m, 2H), 2.09 (s, 6H); ^{13}C NMR (100 MHz, DMSO-*d*₆): δ 140.6, 139.0, 138.2, 131.9, 129.9, 128.8, 127.6, 126.0, 122.3, 121.4, 120.14, 120.07, 119.0, 117.7, 116.3, 108.9, 16.8

Preparation of 4-(3-amino-2-phenyl-imidazo[1,2-*a*]pyridin-6-yl)benzonitrile (1p) from (1l):

To a 1:1 solution of CH₂Cl₂:TFA (6.0 mL) was added **1l** (0.080 g, 0.20 mmol). The solution stirred at room temperature for 20 min then concentrated. The crude solid was purified on preparative HPLC (eluent: 0.1% TFA in aqueous solution and 0.1% TFA in acetonitrile). The product fractions were combined and washed with saturated aqueous NaHCO₃ and extracted with CH₂Cl₂. Organic solvents were evaporated to yield the title compound (0.006 mg, 0.18 mmol, 89%) as a bright yellow solid: HPLC: 100%; HRMS: Calcd for $[C_{20}H_{15}N_4]^+$: 311.12912, Found: 311.13009; 1H NMR (400 MHz, DMSO-*d*₆): δ 8.77 (s, 1H), 8.06 (d, *J* = 9.4 Hz, 2H), 8.00 (m, 4H), 7.55 (d, *J* = 9.3 Hz, 1H), 7.49 (dd, *J* = 9.6, 1.5 Hz, 1H), 7.44 (t, *J* = 7.8 Hz, 2H), 7.26 (t, *J* = 7.5 Hz, 1H), 5.43 (s, 2H); ^{13}C NMR (100 MHz, DMSO-*d*₆): δ 141.8, 137.9, 133.0, 128.3, 127.6, 127.3, 127.0, 126.1, 126.0, 122.0, 120.9, 120.83, 120.81, 120.80, 120.7, 116.9.

N-benzyl-6-(3-methoxyphenyl)-2-phenylH-imidazo[1,2-a]pyridin-3-amine (1a)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	2.51	1003.3	0.9097	18	7.27	2907.2	0.1554	1	[3.83 .. 3.88]	2.897	3.37859e+9	2.897
2	3.33	1330.7	1.0000	19	7.28	2914.3	0.0870	2	[4.12 .. 4.18]	1.949	2.27241e+9	1.949
3	3.85	1542.2	0.6728	20	7.31	2923.9	0.1764	3	[5.45 .. 5.54]	0.973	1.13439e+9	0.973
4	4.14	1657.1	0.1426	21	7.32	2930.9	0.0899	4	[6.93 .. 7.01]	1.011	1.17944e+9	1.011
5	4.16	1663.4	0.1454	22	7.33	2932.6	0.0862	5	[7.13 .. 7.35]	8.329	9.71216e+9	8.329
6	5.49	2195.7	0.0378	23	7.39	2958.5	0.0632	6	[7.37 .. 7.56]	5.300	6.18018e+9	5.300
7	5.50	2202.0	0.0814	24	7.41	2966.5	0.0956	7	[8.18 .. 8.30]	1.995	2.32582e+9	1.995
8	5.52	2208.5	0.0369	25	7.43	2974.4	0.0505	8	[8.34 .. 8.44]	1.000	1.16633e+9	1.000
9	6.96	2785.0	0.0465	26	7.44	2978.9	0.0963					
10	6.97	2787.4	0.0475	27	7.46	2986.6	0.1591					
11	6.98	2793.0	0.0507	28	7.48	2994.1	0.0843					
12	6.99	2795.4	0.0541	29	7.49	2997.4	0.1033					
13	7.15	2862.6	0.1001	30	7.50	2999.1	0.1034					
14	7.16	2865.2	0.1178	31	7.51	3005.5	0.1357					
15	7.20	2881.2	0.0674	32	8.22	3290.2	0.1375					
16	7.22	2888.3	0.0580	33	8.24	3297.4	0.1273					
17	7.25	2899.5	0.0789	34	8.38	3353.9	0.1177					

N-benzyl-6-(3-methoxyphenyl)-2-phenylH-imidazo[1,2-a]pyridin-3-amine (1a)

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	7.861	VV	0.0977	2.03236e4	3400.55786	100.0000

Totals : 2.03236e4 3400.55786

1a

N-benzyl-6-(3-methoxyphenyl)-2-(pyridin-3-yl)H-imidazo[1,2-a]pyridin-3-amine (1b)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	2.50	1001.8	0.6622	19	7.25	2902.8	0.1305	1	[3.83 .. 3.89]	3.025	3.21742e+9	3.025
2	2.51	1003.3	0.8737	20	7.27	2910.0	0.0777	2	[4.12 .. 4.20]	2.027	2.15590e+9	2.027
3	2.51	1004.9	0.6624	21	7.29	2916.8	0.1447	3	[5.56 .. 5.65]	0.994	1.05707e+9	0.994
4	3.33	1330.6	1.0000	22	7.31	2923.9	0.0650	4	[6.95 .. 7.02]	1.027	1.09250e+9	1.027
5	3.86	1543.4	0.5571	23	7.40	2961.8	0.0515	5	[7.13 .. 7.36]	7.367	7.83670e+9	7.367
6	4.16	1663.3	0.1265	24	7.42	2969.6	0.0784	6	[7.39 .. 7.61]	4.255	4.52658e+9	4.255
7	4.17	1669.6	0.1285	25	7.44	2977.3	0.0390	7	[8.37 .. 8.44]	1.032	1.09756e+9	1.032
8	5.59	2236.8	0.0327	26	7.46	2983.5	0.0408	8	[8.44 .. 8.54]	2.045	2.17496e+9	2.045
9	5.61	2243.1	0.0694	27	7.49	2996.2	0.0437	9	[9.31 .. 9.42]	1.000	1.06371e+9	1.000
10	5.62	2249.3	0.0319	28	7.52	3007.5	0.0205					
11	6.97	2789.3	0.0400	29	7.54	3016.7	0.0906					
12	6.98	2791.3	0.0429	30	7.55	3021.8	0.1266					
13	6.99	2797.1	0.0452	31	7.58	3031.0	0.0268					
14	7.00	2799.6	0.0467	32	8.41	3363.7	0.1047					
15	7.17	2869.5	0.0962	33	8.46	3386.1	0.0521					
16	7.18	2871.9	0.1279	34	8.47	3388.0	0.0372					
17	7.21	2885.5	0.0515	35	8.51	3403.7	0.0590					
18	7.24	2895.4	0.0629	36	9.36	3746.7	0.0834					

Chemical structure of compound **1b** is shown, which is 2-(4-methoxyphenyl)-2-(pyridin-2-yl)-1-phenyl-1H-imidazole.

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.217	VB	0.0662	1.29627e4	3136.88379	100.0000

Totals : 1.29627e4 3136.88379

1b

4-(2-benzyl-3-(benzylamino)H-imidazo[1,2-a]pyridin-6-yl)benzonitrile
(1c)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	2.51	1002.9	1.0000	13	7.30	2920.8	0.4699	1	[3.91 .. 3.98]	2.050	4.44123e+9	2.050
2	3.34	1336.3	0.7849	14	7.32	2927.4	0.0900	2	[4.06 .. 4.13]	2.044	4.42845e+9	2.044
3	3.93	1572.7	0.3953	15	7.33	2932.1	0.0794	3	[5.27 .. 5.36]	1.008	2.18305e+9	1.008
4	4.09	1635.5	0.2165	16	7.44	2978.5	0.0393	4	[7.21 .. 7.34]	10.313	2.23458e+10	10.313
5	4.10	1641.6	0.2161	17	7.47	2988.2	0.2599	5	[7.43 .. 7.52]	2.407	5.21491e+9	2.407
6	5.29	2117.8	0.0548	18	7.50	3000.2	0.0354	6	[7.81 .. 7.87]	2.112	4.57525e+9	2.112
7	5.31	2124.1	0.1101	19	7.83	3132.3	0.1867	7	[7.93 .. 7.98]	2.136	4.62821e+9	2.136
8	5.32	2130.1	0.0532	20	7.85	3140.7	0.2559	8	[8.36 .. 8.41]	1.000	2.16743e+9	1.000
9	7.22	2889.7	0.1375	21	7.95	3180.1	0.2630					
10	7.24	2896.4	0.6701	22	7.97	3188.4	0.2016					
11	7.25	2902.6	0.2351	23	8.39	3358.7	0.1827					
12	7.28	2914.2	0.2508									

4-(2-benzyl-3-(benzylamino)H-imidazo[1,2-a]pyridin-6-yl)benzonitrile
(1c)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	39.51	3975.4	1.0000	13	127.53	12832.8	0.0091
2	52.03	5235.6	0.0130	14	128.06	12886.2	0.0388
3	54.90	5524.0	0.0073	15	128.19	12898.7	0.0338
4	109.85	11053.7	0.0084	16	128.29	12908.9	0.0357
5	116.68	11740.9	0.0102	17	128.74	12954.3	0.0367
6	118.82	11956.1	0.0062	18	129.79	13059.7	0.0052
7	121.10	12185.1	0.0089	19	132.89	13371.5	0.0272
8	121.88	12263.5	0.0097	20	137.24	13809.8	0.0097
9	122.09	12285.4	0.0110	21	139.41	14027.9	0.0078
10	125.71	12649.1	0.0134	22	140.38	14125.2	0.0129
11	127.01	12780.1	0.0180	23	141.80	14268.7	0.0088
12	127.12	12791.1	0.0269				

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.867	VV	0.0581	1092.58582	288.72562	4.4386
2	7.072	VV	0.0565	989.84332	271.63870	4.0212
3	7.644	VV	0.1100	2.25332e4	3372.34326	91.5402

Totals : 2.46156e4 3932.70758

**4-(3-(benzylamino)-2-tert-butylH-imidazo[1,2-a]pyridin-6-yl)benzonitrile
(1d)**

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	1.44	574.7	1.0000	14	7.36	2946.4	0.0415	1	[1.40 .. 1.47]	9.072	6.02474e+9	9.072
2	2.51	1003.3	0.3595	15	7.41	2964.1	0.0764	2	[4.10 .. 4.16]	1.976	1.31259e+9	1.976
3	3.33	1330.5	0.3459	16	7.43	2971.2	0.0463	3	[4.80 .. 4.87]	0.982	6.52023e+8	0.982
4	4.12	1648.4	0.0687	17	7.47	2987.7	0.0089	4	[7.23 .. 7.30]	1.087	7.21824e+8	1.087
5	4.14	1654.8	0.0709	18	7.49	2997.2	0.0582	5	[7.31 .. 7.39]	2.078	1.38024e+9	2.078
6	4.82	1927.9	0.0206	19	7.49	2998.8	0.0696	6	[7.39 .. 7.44]	2.018	1.34018e+9	2.018
7	4.83	1934.2	0.0424	20	7.50	3000.2	0.0798	7	[7.44 .. 7.55]	2.064	1.37061e+9	2.064
8	4.85	1940.7	0.0188	21	7.52	3009.7	0.0105	8	[7.73 .. 7.81]	2.015	1.33822e+9	2.015
9	7.24	2898.9	0.0117	22	7.76	3104.4	0.0741	9	[7.89 .. 7.98]	2.020	1.34169e+9	2.020
10	7.26	2906.1	0.0348	23	7.78	3112.9	0.0929	10	[8.27 .. 8.33]	0.992	6.58849e+8	0.992
11	7.28	2913.3	0.0278	24	7.93	3173.3	0.0960					
12	7.33	2931.5	0.0403	25	7.95	3181.6	0.0739					
13	7.35	2939.1	0.0769	26	8.30	3322.4	0.0597					

**4-(3-(benzylamino)-2-tert-butylH-imidazo[1,2-a]pyridin-6-yl)benzonitrile
(1d)**

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	30.29	3048.2	0.0579	11	125.57	12635.2	0.0095
2	32.93	3313.8	0.0148	12	127.02	12780.9	0.0206
3	39.51	3975.4	1.0000	13	127.04	12783.1	0.0330
4	52.80	5313.2	0.0134	14	128.22	12901.6	0.0342
5	109.79	11047.9	0.0083	15	128.30	12909.7	0.0373
6	116.74	11746.8	0.0104	16	132.87	13369.3	0.0309
7	118.82	11956.1	0.0060	17	138.65	13951.8	0.0101
8	121.20	12195.4	0.0115	18	140.37	14124.5	0.0104
9	121.87	12262.7	0.0077	19	141.86	14274.5	0.0088
10	122.06	12281.7	0.0064	20	146.74	14765.6	0.0034

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	7.448	VV	0.1659	3.45788e4	3479.58789	100.0000

Totals : 3.45788e4 3479.58789

6-benzyl-N-cyclohexyl-2-(pyridin-3-yl)H-imidazo[1,2-a]pyridin-3-amine (1e)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	1.11	442.4	0.0326	15	7.25	2900.1	0.0139	1	[1.09 .. 1.27]	6.102	3.65077e+9	6.102
2	1.25	499.4	0.0292	16	7.26	2902.6	0.0127	2	[1.49 .. 1.55]	1.002	5.99209e+8	1.002
3	1.51	603.3	0.0130	17	7.32	2928.3	0.1244	3	[1.58 .. 1.75]	4.564	2.73038e+9	4.564
4	1.64	654.8	0.0186	18	7.34	2934.9	0.0483	4	[3.98 .. 4.04]	2.053	1.22847e+9	2.053
5	1.68	672.8	0.0211	19	7.36	2942.7	0.0116	5	[4.84 .. 4.90]	0.962	5.75383e+8	0.962
6	1.72	686.6	0.0160	20	7.43	2971.6	0.0323	6	[7.07 .. 7.13]	1.028	6.14943e+8	1.028
7	2.51	1004.2	1.0000	21	7.44	2976.6	0.0198	7	[7.20 .. 7.27]	1.489	8.90788e+8	1.489
8	3.31	1324.8	0.0802	22	7.45	2980.8	0.0390	8	[7.30 .. 7.37]	4.745	2.83887e+9	4.745
9	4.01	1604.2	0.0909	23	7.47	2989.3	0.0177	9	[7.41 .. 7.49]	2.211	1.32286e+9	2.211
10	4.87	1946.9	0.0215	24	8.18	3270.3	0.0358	10	[8.15 .. 8.20]	0.994	5.94837e+8	0.994
11	4.88	1952.5	0.0213	25	8.47	3385.8	0.0244	11	[8.45 .. 8.51]	2.075	1.24153e+9	2.075
12	7.09	2834.7	0.0174	26	8.47	3387.5	0.0580	12	[9.32 .. 9.37]	1.000	5.98276e+8	1.000
13	7.11	2843.9	0.0199	27	8.48	3393.1	0.0561					
14	7.22	2886.3	0.0103	28	9.35	3738.2	0.0361					

**6-benzyl-N-cyclohexyl-2-(pyridin-3-yl)H-imidazo[1,2-a]pyridin-3-amine
(1e)**

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	24.45	2458.9	0.0431	12	126.45	12717.8	0.0157
2	25.39	2554.0	0.0230	13	126.52	12724.4	0.0208
3	33.50	3369.3	0.0438	14	128.50	12923.4	0.0648
4	37.72	3793.8	0.0228	15	128.73	12946.8	0.0676
5	39.55	3977.5	1.0000	16	130.58	13132.7	0.0123
6	56.42	5673.9	0.0188	17	132.49	13325.2	0.0112
7	116.70	11736.4	0.0226	18	133.23	13399.1	0.0210
8	121.34	12203.3	0.0190	19	140.13	14093.6	0.0159
9	123.44	12414.8	0.0205	20	140.33	14113.4	0.0178
10	124.89	12560.4	0.0188	21	147.50	14834.2	0.0230
11	126.25	12697.3	0.0282	22	147.54	14838.6	0.0176

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.432	VV	0.0891	220.84061	35.22932	3.2611
2	6.663	VV	0.0691	6551.03516	1438.42859	96.7389

Totals : 6771.87576 1473.65791

6-(2-aminopyrimidin-5-yl)-N-cyclohexyl-2-(4-(trifluoromethyl)phenyl)H-midazo[1,2-a]pyridin-3-amine (1f)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	1.11	445.4	0.0421	13	7.51	3003.1	0.0182	1	[1.04 .. 1.41]	6.028	5.16808e+9	6.028
2	1.35	538.2	0.0172	14	7.53	3012.5	0.0378	2	[1.46 .. 1.54]	1.027	8.80899e+8	1.027
3	1.51	604.1	0.0163	15	7.53	3014.0	0.0377	3	[1.60 .. 1.70]	2.165	1.85608e+9	2.165
4	1.65	659.0	0.0247	16	7.57	3027.4	0.0550	4	[1.71 .. 1.81]	2.177	1.86656e+9	2.177
5	1.75	699.6	0.0265	17	7.59	3036.7	0.0244	5	[4.90 .. 4.97]	0.981	8.41460e+8	0.981
6	1.78	711.0	0.0224	18	7.79	3115.5	0.0553	6	[6.87 .. 6.92]	1.896	1.62547e+9	1.896
7	2.51	1003.3	1.0000	19	7.81	3123.9	0.0585	7	[7.49 .. 7.62]	2.048	1.75557e+9	2.048
8	3.33	1333.9	0.6588	20	8.45	3380.3	0.0585	8	[7.75 .. 7.84]	2.049	1.75661e+9	2.049
9	4.93	1972.6	0.0327	21	8.47	3388.4	0.0524	9	[8.43 .. 8.50]	2.031	1.74144e+9	2.031
10	4.93	1973.1	0.0328	22	8.60	3440.0	0.0512	10	[8.57 .. 8.62]	1.000	8.57206e+8	1.000
11	4.95	1979.8	0.0347	23	8.64	3457.8	0.2112	11	[8.62 .. 8.67]	1.998	1.71299e+9	1.998
12	6.89	2758.3	0.0963									

6-(2-aminopyrimidin-5-yl)-N-cyclohexyl-2-(4-(trifluoromethyl)phenyl)H-imidazo[1,2-a]pyridin-3-amine (1f)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	24.61	2476.6	0.0312	11	123.45	12422.3	0.0127
2	25.33	2549.1	0.0144	12	125.17	12595.0	0.0131
3	33.51	3371.6	0.0306	13	125.21	12598.6	0.0123
4	39.50	3974.7	1.0000	14	126.49	12728.2	0.0327
5	57.06	5741.3	0.0157	15	127.89	12868.7	0.0141
6	117.28	11800.9	0.0168	16	132.56	13338.5	0.0103
7	118.63	11937.1	0.0145	17	138.76	13962.0	0.0069
8	119.08	11981.7	0.0129	18	139.76	14063.0	0.0147
9	120.22	12096.6	0.0139	19	155.92	15689.2	0.0413
10	123.13	12390.1	0.0040	20	163.05	16406.4	0.0150

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	7.162	VV	0.0585	7190.99854	1885.88184	100.0000

Totals : 7190.99854 1885.88184

N-cyclohexyl-6-(pyridin-4-yl)-2-(4-(trifluoromethyl)phenyl)H-imidazo[1,2-a]pyridin-3-amine (1g)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	1.12	448.0	0.0375	14	7.66	3066.0	0.0561	1	[1.05 .. 1.43]	5.719	4.35665e+9	5.719
2	1.37	546.4	0.0162	15	7.68	3071.1	0.0418	2	[1.48 .. 1.54]	0.933	7.10901e+8	0.933
3	1.52	606.8	0.0140	16	7.68	3072.7	0.0402	3	[1.61 .. 1.69]	1.914	1.45820e+9	1.914
4	1.65	660.1	0.0211	17	7.70	3082.2	0.0113	4	[1.73 .. 1.84]	1.989	1.51549e+9	1.989
5	1.77	707.1	0.0226	18	7.80	3122.7	0.1084	5	[5.04 .. 5.10]	0.968	7.37655e+8	0.968
6	1.79	718.2	0.0196	19	7.82	3128.9	0.0790	6	[7.62 .. 7.72]	2.010	1.53119e+9	2.010
7	2.50	1001.5	0.7320	20	7.83	3131.2	0.0606	7	[7.78 .. 7.85]	4.050	3.08548e+9	4.050
8	2.51	1003.3	1.0000	21	8.46	3384.6	0.0519	8	[8.43 .. 8.51]	2.005	1.52728e+9	2.005
9	2.51	1004.9	0.7550	22	8.48	3392.7	0.0480	9	[8.67 .. 8.74]	2.007	1.52858e+9	2.007
10	3.32	1329.6	0.6491	23	8.71	3483.2	0.0615	10	[8.86 .. 8.90]	1.001	7.62332e+8	1.001
11	5.06	2025.8	0.0309	24	8.72	3489.2	0.0578					
12	5.08	2033.0	0.0294	25	8.88	3551.6	0.0468					
13	7.64	3056.8	0.0145									

N-cyclohexyl-6-(pyridin-4-yl)-2-(4-(trifluoromethyl)phenyl)H-imidazo[1,2-a]pyridin-3-amine (1g)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	24.64	2477.9	0.1134	11	125.21	12592.6	0.0501
2	25.31	2545.3	0.0609	12	125.25	12596.3	0.0501
3	33.57	3376.6	0.1237	13	125.82	12654.1	0.0150
4	39.54	3976.7	1.0000	14	126.61	12733.9	0.1178
5	57.22	5754.4	0.0596	15	128.32	12905.1	0.0530
6	117.47	11814.0	0.0599	16	133.00	13375.7	0.0336
7	120.77	12146.2	0.1346	17	138.54	13933.4	0.0263
8	121.64	12233.3	0.0604	18	140.24	14104.6	0.0441
9	121.84	12253.8	0.0460	19	143.99	14481.5	0.0414
10	123.20	12380.6	0.0537	20	150.39	15124.8	0.1574

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.509	VV	0.0628	7013.04102	1747.20654	100.0000

Totals : 7013.04102 1747.20654

N-tert-butyl-2-(4-methoxyphenyl)-6-(pyridin-4-yl)H-imidazo[1,2-a]pyridin-3-amine (1h)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	1.06	425.2	0.8575	11	7.63	3053.4	0.0440	1	[1.01 .. 1.11]	9.083	8.25151e+9	9.083
2	2.51	1003.3	1.0000	12	7.65	3060.7	0.0160	2	[3.77 .. 3.84]	3.010	2.73440e+9	3.010
3	3.32	1329.8	0.8815	13	7.77	3109.0	0.0742	3	[4.67 .. 4.70]	0.960	8.71680e+8	0.960
4	3.81	1523.1	0.3370	14	7.78	3113.5	0.0512	4	[6.94 .. 7.02]	1.993	1.81014e+9	1.993
5	4.69	1877.0	0.0893	15	7.78	3115.0	0.0775	5	[7.55 .. 7.67]	2.040	1.85282e+9	2.040
6	6.98	2791.8	0.0775	16	8.16	3265.3	0.0824	6	[7.75 .. 7.81]	1.991	1.80836e+9	1.991
7	7.00	2800.6	0.0804	17	8.18	3274.1	0.0791	7	[8.13 .. 8.20]	1.980	1.79857e+9	1.980
8	7.58	3033.7	0.0242	18	8.68	3473.9	0.0761	8	[8.66 .. 8.72]	2.013	1.82828e+9	2.013
9	7.60	3042.8	0.0638	19	8.70	3479.9	0.0730	9	[8.80 .. 8.90]	1.000	9.08240e+8	1.000
10	7.63	3051.7	0.0443	20	8.84	3538.6	0.0536					

N-tert-butyl-2-(4-methoxyphenyl)-6-(pyridin-4-yl)H-imidazo[1,2-a]pyridin-3-amine (1h)

No.	(ppm)	(Hz)	Height
1	30.07	3025.5	0.0802
2	39.51	3975.4	1.0000
3	55.01	5534.9	0.0324
4	56.03	5637.4	0.0300
5	113.33	11403.5	0.0377
6	116.89	11762.1	0.0193
7	120.63	12138.3	0.0364
8	120.94	12169.0	0.0167
9	122.07	12283.2	0.0178
10	122.50	12326.4	0.0167
11	123.98	12475.0	0.0191
12	127.56	12835.0	0.0156
13	128.87	12967.5	0.0381
14	138.74	13960.6	0.0121
15	140.58	14145.7	0.0124
16	144.22	14511.7	0.0152
17	150.39	15132.3	0.0455
18	158.47	15945.3	0.0192

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	5.275	VV	0.0585	8744.41992	2291.07837	96.9661
2	5.439	VV	0.0518	169.46298	49.63408	1.6792
3	5.502	VB	0.0653	104.13110	21.97946	1.1547

Totals : 9018.01401 2362.69191

6-(2-aminopyrimidin-5-yl)-N-tert-butylH-imidazo[1,2-a]pyridin-3-amine (1i)

No.	(ppm)	(Hz)	Height
1	1.19	478.1	0.2521
2	2.51	1003.2	1.0000
3	3.33	1333.6	0.5182
4	4.56	1825.9	0.0194
5	6.84	2736.5	0.0281
6	7.15	2861.0	0.0275
7	7.37	2949.2	0.0072
8	7.39	2958.9	0.0111
9	7.48	2994.0	0.0154
10	7.51	3003.2	0.0101
11	8.50	3400.7	0.0161
12	8.60	3439.8	0.0703

No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	[1.18 . 1.22]	9.818	2.40160e+9	9.818
2	[4.54 . 4.58]	0.965	2.35962e+8	0.965
3	[6.81 . 6.86]	2.039	4.98821e+8	2.039
4	[7.13 . 7.17]	1.181	2.88888e+8	1.181
5	[7.35 . 7.41]	1.023	2.50227e+8	1.023
6	[7.47 . 7.53]	1.108	2.70962e+8	1.108
7	[8.47 . 8.55]	1.000	2.44699e+8	1.000
8	[8.57 . 8.63]	2.246	5.49433e+8	2.246

**6-(2-aminopyrimidin-5-yl)-N-tert-butylH-imidazo[1,2-a]pyridin-3-amine
(1i)**

No.	(ppm)	(Hz)	Height
1	29.31	2949.4	0.0365
2	39.51	3975.4	1.0000
3	52.74	5307.3	0.0130
4	117.18	11791.4	0.0091
5	118.44	11917.3	0.0087
6	119.41	12015.4	0.0066
7	119.56	12030.0	0.0066
8	121.48	12223.9	0.0086
9	125.24	12601.6	0.0059
10	128.96	12976.3	0.0051
11	139.88	14075.5	0.0045
12	155.87	15684.1	0.0235
13	162.96	16397.6	0.0078

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	3.907	VV	0.0499	414.86493	134.86401	2.1888
2	4.074	VV	0.0801	1.80149e4	3619.93311	95.0459
3	4.561	VV	0.0538	524.13904	153.83260	2.7653

Stals : 1.89539e4 3908.62971

6-(2-aminopyrimidin-5-yl)-2-benzyl-N-tert-butylH-imidazo[1,2-a]pyridin-3-amine (1j)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	1.15	461.4	1.0000	12	7.27	2909.9	0.0669	1	[1.13 .. 1.18]	8.968	7.92512e+9	8.968
2	2.51	1003.0	0.2177	13	7.29	2918.1	0.1065	2	[4.05 .. 4.09]	1.933	1.70776e+9	1.933
3	3.32	1329.7	0.3195	14	7.31	2925.2	0.0483	3	[4.36 .. 4.39]	0.970	8.56888e+8	0.970
4	4.06	1624.6	0.1548	15	7.37	2949.6	0.0163	4	[7.13 .. 7.19]	1.068	9.43998e+8	1.068
5	4.37	1749.3	0.1092	16	7.38	2951.2	0.0166	5	[7.23 .. 7.32]	4.340	3.83514e+9	4.340
6	6.82	2727.0	0.1251	17	7.39	2958.9	0.0585	6	[7.36 .. 7.41]	1.037	9.16567e+8	1.037
7	7.14	2855.3	0.0144	18	7.40	2960.5	0.0643	7	[7.41 .. 7.45]	1.037	9.16449e+8	1.037
8	7.15	2862.5	0.0390	19	7.41	2965.7	0.0839	8	[8.45 .. 8.48]	0.986	8.70924e+8	0.986
9	7.17	2869.6	0.0284	20	7.43	2974.9	0.0213	9	[8.55 .. 8.59]	1.981	1.75026e+9	1.981
10	7.23	2894.9	0.0408	21	8.46	3386.9	0.0725					
11	7.25	2902.6	0.0918	22	8.56	3426.0	0.2946					

6-(2-aminopyrimidin-5-yl)-2-benzyl-N-tert-butylH-imidazo[1,2-a]pyridin-3-amine (1j)

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	5.813	VV	0.0957	1.97535e4	3403.56055	99.2889
2	6.695	VV	0.0538	141.47305	41.51211	0.7111

Totals : 1.98950e4 3445.07265

6-(2-aminopyrimidin-5-yl)-N-(2,4,4-trimethylpentan-2-yl)H-imidazo[1,2-a]pyridin-3-amine (1k)

No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	1.02	407.9	1.0000	1	[0.98 .. 1.04]	9.151	7.51650e+9	9.151
2	1.25	499.0	0.5955	2	[1.22 .. 1.28]	6.093	5.00453e+9	6.093
3	1.67	667.7	0.1788	3	[1.65 .. 1.69]	1.922	1.57855e+9	1.922
4	2.51	1003.3	0.3101	4	[4.49 .. 4.54]	0.953	7.82792e+8	0.953
5	3.34	1335.8	0.1840	5	[6.82 .. 6.87]	1.853	1.52158e+9	1.853
6	4.52	1806.9	0.0835	6	[7.10 .. 7.14]	0.965	7.92692e+8	0.965
7	6.84	2738.5	0.1264	7	[7.33 .. 7.39]	1.003	8.23483e+8	1.003
8	7.12	2849.6	0.1164	8	[7.45 .. 7.51]	1.020	8.37898e+8	1.020
9	7.34	2937.7	0.0315	9	[8.46 .. 8.49]	0.965	7.92423e+8	0.965
10	7.35	2939.3	0.0331	10	[8.57 .. 8.61]	2.000	1.64251e+9	2.000
11	7.37	2947.0	0.0446					
12	7.37	2948.7	0.0474					
13	7.47	2988.1	0.0650					
14	7.49	2997.3	0.0461					
15	8.47	3390.9	0.0729					
16	8.59	3437.4	0.3372					

6-(2-aminopyrimidin-5-yl)-N-(2,4,4-trimethylpentan-2-yl)H-imidazo[1,2-a]pyridin-3-amine (1k)

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	5.862	VV	0.0710	1.37322e4	3140.04419	100.0000

Totals : 1.37322e4 3140.04419

4-(2-phenyl-3-(2,4,4-trimethylpentan-2-ylamino)H-imidazo[1,2-a]pyridin-6-yl)benzonitrile (11)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	0.96	383.1	0.4876	11	7.42	2970.5	0.0975	1	[0.94 .. 0.98]	5.977	4.74714e+9	5.977
2	1.00	401.0	1.0000	12	7.44	2977.8	0.0465	2	[0.99 .. 1.02]	9.538	7.57495e+9	9.538
3	1.65	661.9	0.1693	13	7.62	3049.2	0.1737	3	[1.63 .. 1.68]	2.065	1.64005e+9	2.065
4	2.51	1003.3	0.8681	14	7.94	3178.9	0.0694	4	[4.53 .. 4.57]	0.970	7.70551e+8	0.970
5	3.33	1334.2	0.6326	15	7.97	3187.5	0.1448	5	[7.27 .. 7.34]	1.125	8.93401e+8	1.125
6	4.55	1820.4	0.1005	16	8.01	3203.1	0.1504	6	[7.39 .. 7.45]	2.259	1.79396e+9	2.259
7	7.29	2915.7	0.0187	17	8.03	3211.5	0.0725	7	[7.61 .. 7.64]	1.997	1.58644e+9	1.997
8	7.30	2922.9	0.0470	18	8.15	3260.0	0.0898	8	[7.93 .. 7.98]	2.064	1.63908e+9	2.064
9	7.32	2930.4	0.0324	19	8.17	3267.4	0.0817	9	[8.00 .. 8.05]	2.042	1.62153e+9	2.042
10	7.40	2962.8	0.0615	20	8.81	3525.0	0.0782	10	[8.13 .. 8.18]	2.094	1.66295e+9	2.094
								11	[8.79 .. 8.83]	0.982	7.79603e+8	0.982

4-(2-phenyl-3-(2,4,4-trimethylpentan-2-ylamino)H-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1I)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	28.84	2901.8	0.0139	12	124.52	12529.1	0.0068
2	31.32	3151.4	0.0153	13	127.08	12787.4	0.0185
3	31.62	3182.1	0.0324	14	127.13	12791.8	0.0060
4	39.51	3975.4	1.0000	15	127.88	12867.2	0.0171
5	55.86	5620.6	0.0077	16	127.90	12870.1	0.0184
6	60.32	6069.9	0.0121	17	133.09	13391.9	0.0188
7	110.05	11073.5	0.0068	18	135.39	13623.2	0.0043
8	117.10	11782.6	0.0072	19	139.15	14001.6	0.0037
9	118.81	11954.6	0.0040	20	140.53	14140.6	0.0054
10	122.36	12311.8	0.0064	21	141.72	14260.6	0.0067
11	123.18	12394.4	0.0059				

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	8.767	VV	0.0681	6991.03320	1626.40759	94.4493
2	9.017	VV	0.0651	410.85953	93.77120	5.5507

Totals : 7401.89273 1720.17879

4-(2-tert-butyl-3-(2,4,4-trimethylpentan-2-ylamino)H-imidazo[1,2-a]pyridine-6-yl)benzonitrile (1m)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	1.27	507.6	0.8889	11	7.72	3087.5	0.0540	1	[1.25 .. 1.30]	9.216	6.71373e+9	9.216
2	1.40	558.8	0.4478	12	7.72	3089.1	0.0533	2	[1.37 .. 1.42]	5.875	4.28016e+9	5.875
3	1.65	658.9	1.0000	13	7.74	3096.9	0.0174	3	[1.63 .. 1.67]	9.101	6.63030e+9	9.101
4	1.91	763.4	0.1547	14	7.74	3098.5	0.0186	4	[1.89 .. 1.93]	1.997	1.45469e+9	1.997
5	2.71	1083.9	0.2157	15	8.07	3230.4	0.0711	5	[4.11 .. 4.15]	0.978	7.12724e+8	0.978
6	3.54	1415.9	0.1409	16	8.09	3238.9	0.1076	6	[7.67 .. 7.71]	1.168	8.50544e+8	1.168
7	4.13	1651.3	0.0915	17	8.18	3271.5	0.1101	7	[7.71 .. 7.75]	1.194	8.69730e+8	1.194
8	5.97	2387.1	0.0803	18	8.20	3279.9	0.0735	8	[8.06 .. 8.11]	2.020	1.47145e+9	2.020
9	7.68	3071.8	0.0252	19	8.85	3541.4	0.0620	9	[8.16 .. 8.21]	2.058	1.49949e+9	2.058
10	7.70	3081.0	0.0783					10	[8.83 .. 8.88]	0.999	7.27747e+8	0.999

**4-(2-tert-butyl-3-(2,4,4-trimethylpentan-2-ylamino)H-imidazo[1,2-a]pyridi
n-6-yl)benzonitrile (1m)**

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height
1	30.14	3032.8	0.0230	11	118.80	11953.9	0.0137
2	30.98	3117.0	0.1227	12	121.29	12204.9	0.0238
3	31.50	3169.7	0.0454	13	122.31	12307.4	0.0205
4	31.75	3195.3	0.1183	14	122.55	12331.5	0.0243
5	33.37	3357.7	0.0355	15	122.68	12344.0	0.0254
6	39.54	3979.1	1.0000	16	126.84	12763.3	0.0620
7	56.77	5712.8	0.0298	17	133.10	13392.7	0.0592
8	58.31	5867.2	0.0423	18	139.41	14027.9	0.0217
9	109.85	11053.7	0.0203	19	142.05	14293.6	0.0200
10	116.65	11737.3	0.0247	20	148.71	14963.9	0.0170

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	8.851	VV	0.0664	5572.49463	1288.82361	100.0000

Totals : 5572.49463 1288.82361

4-(3-(2,6-dimethylphenylamino)H-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1o)

No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	2.09	836.2	0.8576	1	[2.05 .. 2.15]	6.000	1.10353e+10	6.000
2	2.51	1003.2	1.0000	2	[6.59 .. 6.68]	0.899	1.65260e+9	0.899
3	3.33	1334.2	0.2924	3	[6.92 .. 7.01]	0.989	1.81907e+9	0.989
4	6.66	2663.4	0.1167	4	[7.03 .. 7.14]	2.951	5.42775e+9	2.951
5	6.95	2779.5	0.0315	5	[7.58 .. 7.67]	1.921	3.53285e+9	1.921
6	6.97	2787.4	0.0657	6	[7.95 .. 8.05]	4.021	7.39609e+9	4.021
7	6.98	2794.7	0.0572	7	[8.73 .. 8.82]	0.950	1.74739e+9	0.950
8	7.08	2831.3	0.1550					
9	7.10	2839.2	0.1850					
10	7.62	3049.8	0.2031					
11	8.00	3202.3	0.6081					
12	8.78	3513.4	0.1009					

4-(3-(2,6-dimethylphenylamino)H-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1o)

No.	(ppm)	(Hz)	Height
1	16.76	1686.4	0.0313
2	38.38	3862.2	1.0000
3	108.92	10960.2	0.0076
4	116.32	11704.5	0.0117
5	117.67	11839.9	0.0046
6	118.97	11970.9	0.0072
7	120.07	12082.1	0.0090
8	120.14	12088.7	0.0085
9	121.38	12213.1	0.0088
10	122.32	12308.3	0.0086
11	126.04	12682.2	0.0256
12	127.59	12838.9	0.0243
13	128.82	12962.5	0.0073
14	129.93	13073.8	0.0173
15	131.89	13271.4	0.0309
16	138.20	13805.9	0.0083
17	139.01	13987.1	0.0068
18	140.60	14147.4	0.0078

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.950	MM	0.0619	4254.34863	1146.29956	95.1531
2	7.199	MM	0.0619	73.30400	19.73536	1.6395
3	7.326	MM	0.0717	143.40273	33.31157	3.2074

Totals : 4471.05536 1199.34649

4-(3-amino-2-phenyl-1H-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1p)

No.	(ppm)	(Hz)	Height	No.	(ppm)	(Hz)	Height	No.	(ppm)	Value	Absolute Value	Non-Negative Value
1	2.51	1004.1	1.0000	11	7.50	3000.3	0.0444	1	[5.40 .. 5.48]	1.911	1.77036e+9	1.911
2	3.31	1323.4	0.6249	12	7.54	3014.4	0.0675	2	[7.23 .. 7.30]	1.022	9.46880e+8	1.022
3	5.43	2171.8	0.0842	13	7.56	3023.7	0.0295	3	[7.41 .. 7.47]	2.047	1.89695e+9	2.047
4	7.24	2894.9	0.0160	14	7.97	3189.3	0.0108	4	[7.47 .. 7.52]	1.025	9.49476e+8	1.025
5	7.26	2902.4	0.0403	15	8.00	3198.4	0.3298	5	[7.52 .. 7.58]	1.033	9.57275e+8	1.033
6	7.28	2909.8	0.0245	16	8.02	3207.7	0.0107	6	[7.96 .. 8.03]	4.065	3.76618e+9	4.065
7	7.42	2967.3	0.0500	17	8.05	3221.3	0.0718	7	[8.03 .. 8.09]	2.070	1.91790e+9	2.070
8	7.44	2975.0	0.0794	18	8.07	3228.5	0.0695	8	[8.75 .. 8.78]	1.000	9.26140e+8	1.000
9	7.46	2982.8	0.0418	19	8.77	3506.3	0.0612					
10	7.48	2990.9	0.0198									

4-(3-amino-2-phenylH-imidazo[1,2-a]pyridin-6-yl)benzonitrile (1p)

No.	(ppm)	(Hz)	Height
1	39.55	3977.5	1.0000
2	116.88	11754.7	0.0052
3	120.79	12147.7	0.0020
4	120.81	12149.9	0.0049
5	120.83	12152.1	0.0030
6	120.90	12159.4	0.0054
7	122.04	12274.3	0.0046
8	125.97	12669.5	0.0037
9	126.06	12678.3	0.0137
10	126.96	12769.0	0.0132
11	127.31	12804.1	0.0052
12	127.60	12833.4	0.0042
13	128.33	12906.6	0.0137
14	132.95	13371.3	0.0147
15	137.94	13872.6	0.0041
16	141.84	14265.6	0.0051

5-100%ACN w/0.1%TFA, 15 minute runtime, 1.5mL/min, 4.6x150 Zorbax SB-C8

Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254.8 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	5.980	BB	0.0519	1419.39575	436.92831	100.0000

Totals : 1419.39575 436.92831