

Supplementary Information

Synthesis and Phytotoxic Activity of 1,2,3-Triazole Derivatives

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Benzyl methanesulfonate (**2a**)

Colorless liquid; yield 100%; IR (ATR) ν/cm^{-1} 3064, 3031, 2866, 1496, 1454, 1357, 1172, 1071, 1025, 967, 934, 912, 734; ¹H NMR (200 MHz, CDCl₃) δ 2.85 (s, 3H, $-\text{CH}_3$), 5.17 (s, 2H, benzylic), 7.03-7.38 (m, 5H, H2/H3/H4/H5/H6); ¹³C NMR (50 MHz, CDCl₃) δ 37.6 ($-\text{CH}_3$), 71.5 (benzylic), 128.5 (C4), 128.6 (C2/C6), 129.00 (C3/C5), 133.3 (C1).

4-Fluorobenzyl methanesulfonate (**2b**)

Colorless liquid; yield 95%; IR (ATR) ν/cm^{-1} 3017, 2931, 2855, 1508, 1156, 1061, 1043, 1010, 824, 779; ¹H NMR (200 MHz, CDCl₃) δ 2.88 (s, 3H, $-\text{CH}_3$), 5.11 (s, 2H, benzylic), 6.05-7.03 (m, 2H, H3/H5), 7.28-7.36 (m, 2H, H2/H6); ¹³C NMR (50 MHz, CDCl₃) δ 37.6 ($-\text{CH}_3$), 70.8 (benzylic), 115.6 (d, *J* 21.7 Hz, C3/C5), 129.4 (d, *J* 2.9 Hz, C1), 130.8 (d, *J* 8.5 Hz, C2/C6), 162.9 (d, *J* 246.4 Hz, C4).

4-Chlorobenzyl methanesulfonate (**2c**)

Yellow solid; m.p. 124 °C; yield 91%; IR (ATR) ν/cm^{-1} 1488, 1340, 1087, 1009, 805, 782; ¹H NMR (200 MHz, CDCl₃) δ 2.94 (s, 3H, $-\text{CH}_3$), 5.17 (s, 2H, benzylic), 7.33 (m, 4H, H2/H3/H5/H6); ¹³C NMR (50 MHz, CDCl₃) δ 37.9 ($-\text{CH}_3$), 70.6 (benzylic), 128.9 (C3/C5), 130.0 (C2/C6), 132.0 (C1), 135.0 (C4).

4-Bromobenzyl methanesulfonate (**2d**)

White solid; m.p. 153 °C; yield 99%; IR (ATR) ν/cm^{-1} 2838, 1485, 1342, 1122, 1067, 1033, 960, 793; ¹H NMR (200 MHz, CDCl₃) δ 2.95 (s, 3H, $-\text{CH}_3$), 5.17 (s, 2H,

benzylic), 7.28 (d, 2H, *J* 8.4 Hz, H2/H6), 7.51 (d, 2H, *J* 8.4 Hz, H3/H5); ¹³C NMR (50 MHz, CDCl₃) δ 38.2 ($-\text{CH}_3$), 70.6 (benzylic), 123.5 (C4), 130.4 (C2/C6), 132.0 (C3/C5), 132.6 (C1).

4-Iodobenzyl methanesulfonate (**2e**)

Yellow solid; m.p. 181 °C; yield 90%; IR (ATR) ν/cm^{-1} 3039, 3018, 2941, 1485, 1402, 1333, 1167, 1057, 1009, 994, 950, 801, 753; ¹H NMR (200 MHz, CDCl₃) δ 2.94 (s, 3H, $-\text{CH}_3$), 5.14 (s, 2H, benzylic), 7.13 (d, 2H, *J* 8.0 Hz, H2/H6), 7.70 (d, 2H, *J* 8.0 Hz, H3/H5); ¹³C NMR (50 MHz, CDCl₃) δ 38.2 ($-\text{CH}_3$), 70.6 (benzylic), 95.4 (C4), 130.5 (C2/C6), 133.1 (C1), 137.2 (C3/C5).

4-(Trifluoromethoxy)benzyl methanesulfonate (**2f**)

Colorless liquid; yield 100%; IR (ATR) ν/cm^{-1} 2863, 1509, 1361, 1151, 1251, 1196, 1213, 1107, 1018, 961, 920, 813, 711; ¹H NMR (200 MHz, CDCl₃) δ 2.94 (s, 3H, $-\text{CH}_3$), 5.19 (s, 2H, benzylic), 7.20 (d, 2H, *J* 8.0 Hz, H3/H5), 7.42 (d, 2H, *J* 8.0 Hz, H2/H6); ¹³C NMR (50 MHz, CDCl₃) δ 37.9 ($-\text{CH}_3$), 70.4 (benzylic), 120.4 (q, *J* 256 Hz, $-\text{CF}_3$), 121.2 (C3/C5), 130.4 (C2/C6), 132.4 (C1), 149.7 (C4).

4-(Trifluoromethyl)benzyl methanesulfonate (**2g**)

Colorless liquid; yield 77%; IR (ATR) ν/cm^{-1} 3039, 3018, 2941, 1333, 1109, 1020, 922, 801, 753; ¹H NMR (200 MHz, CDCl₃) δ 2.97 (s, 3H, $-\text{CH}_3$), 5.23 (s, 2H, benzylic), 7.47 (d, 2H, *J* 8.2 Hz, H2/H6), 7.57 (d, 2H, *J* 8.2 Hz, H3/H5); ¹³C NMR (50 MHz, CDCl₃) δ 37.4 ($-\text{CH}_3$), 70.2 (benzylic), 123.9 (q, *J* 270 Hz, $-\text{CF}_3$), 125.2 (C3/C5), 128.7 (C2/C6), 131.3 (q, *J* 17 Hz, C4), 137.8 (C1).

3,4-(Difluoro)benzyl methanesulfonate (2h**)**

Yellow liquid; yield 93%; IR (ATR) ν/cm^{-1} 3029, 2943, 1520, 1438, 1350, 1170, 1213, 1118, 1055, 952, 926, 812, 779, 735; ^1H NMR (200 MHz, CDCl_3) δ 2.95 (s, 3H, $-\text{CH}_3$), 5.10 (s, 2H, benzylic), 7.07-7.23 (m, 2H, H2/H5/H6); ^{13}C NMR (50 MHz, CDCl_3) δ 37.6 ($-\text{CH}_3$), 70.0 (benzylic), 117.1-118.0 (m, C2/C5), 124.9-125.1 (m, C6), 130.7-130.9 (m, C1), 150.0 (dd, J 15 Hz, 250 Hz, C4), 150.4 (dd, J 15 Hz, 250 Hz, C3).

5-Bromo-2-chlorobenzyl methanesulfonate (2i**)**

Yellow solid; m.p. 207 °C; yield 98%; IR (ATR) ν/cm^{-1} 2849, 1447, 1398, 1346, 1169, 1043, 972, 806, 761; ^1H NMR (200 MHz, CDCl_3) δ 3.03 (s, 3H, $-\text{CH}_3$), 5.18 (s, 2H, benzylic), 7.17 (d, 1H, J 8.0 Hz, H3), 7.34 (d, 1H, J 8.0 Hz, H4), 7.53 (s, 1H, H6); ^{13}C NMR (50 MHz, CDCl_3) δ 37.5 ($-\text{CH}_3$), 67.5 (benzylic), 120.4 (C5), 130.9 (C4), 132.2 (C2), 132.6 (C3), 133.1 (C6), 133.3 (C1).

2,4,6-Trichlorobenzyl methanesulfonate (2j**)**

Yellow solid; m.p. 242 °C; yield 99%; IR (ATR) ν/cm^{-1} 1484, 1447, 1346, 1305, 1044, 858; ^1H NMR (200 MHz, CDCl_3) δ 3.03 (s, 3H, $-\text{CH}_3$), 5.32 (s, 2H, benzylic), 7.26 (s, 2H, H3/H5); ^{13}C NMR (50 MHz, CDCl_3) δ 37.3 ($-\text{CH}_3$), 65.3 (benzylic), 127.3 (C1), 128.5 (C3/C5), 136.5 (C4), 137.5 (C2/C6).

3-[1'-(4"-Bromobenzyl)-1',2',3'-triazol-4'-yl]propyl methanesulfonate (6**)**

White solid; 231 °C; yield 94%; IR (ATR) ν/cm^{-1} 3123, 2942, 1489, 1409, 1336, 1069, 1041, 773; ^1H NMR (200 MHz, CDCl_3) δ 1.89 (t, 2H, J 5.8 Hz, H3), 2.95 (s, 3H, $-\text{CH}_3$), 3.65 (qn, 2H, J 5.8 Hz, H2), 4.14 (t, 2H, J 5.8 Hz, H1), 5.35 (s, 2H, benzylic), 7.04 (d, 2H, J 7.8 Hz, H2"/H6"), 7.35 (d, 2H, J 7.8 Hz, H3"/H5"); 7.39 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 21.9 (C3), 28.3 (C2), 37.0 ($-\text{CH}_3$), 53.1 (benzylic), 69.1 (C1), 121.6 (C5'), 122.4 (C4"), 129.6 (C2"/C6"), 131.9 (C3"/C5"), 133.8 (C1"), 146.2 (C4').

1-(Azidomethyl)benzene (3a**)**

Colorless liquid; yield 85%; IR (ATR) ν/cm^{-1} 2925, 2872, 2092, 1588, 1484, 1059, 1006, 786; ^1H NMR (200 MHz, CDCl_3) δ 4.26 (s, 2H, benzylic), 7.09-7.26 (m, 5H, H2/H3/H4/H5/H6); ^{13}C NMR (50 MHz, CDCl_3) δ 54.8 (benzylic), 128.4 (C4), 128.3 (C3/C5), 128.9 (C2/C6), 135.5 (C1).

1-(Azidomethyl)-4-fluorobenzene (3b**)**

Colorless liquid; yield 91%; IR (ATR) ν/cm^{-1} 2931, 2880, 2093, 1601, 1508, 1221; ^1H NMR (200 MHz, CDCl_3)

δ 4.30 (s, 2H, benzylic), 7.09-7.30 (m, 4H, H2/H3/H5/H6); ^{13}C NMR (50 MHz, CDCl_3) δ 53.9 (benzylic), 115.6 (d, J 21.5 Hz, C3/C5), 130.0 (d, J 8.2 Hz, C2/C6), 131.4 (d, J 2.5 Hz, C1), 162.6 (d, J 245.0 Hz, C4).

1-(Azidomethyl)-4-chlorobenzene (3c**)**

Yellow liquid; yield 93%; IR (ATR) ν/cm^{-1} 2930, 2877, 2092, 1491, 1090, 838, 796; ^1H NMR (200 MHz, CDCl_3) δ 4.30 (s, 2H, benzylic), 7.24 (d, 2H, J 7.5 Hz, H2/H6), 7.36 (d, 2H, J 7.5 Hz, H3/H5); ^{13}C NMR (50 MHz, CDCl_3) δ 53.9 (benzylic), 128.9 (C3/C5), 129.4 (C2/C6), 134.0 (C1), 134.1 (C4).

1-(Azidomethyl)-4-bromobenzene (3d**)**

Yellow liquid; yield 96%; IR (ATR) ν/cm^{-1} 3046, 2929, 2875, 2091, 1592, 1488, 1070, 1011, 834, 791; ^1H NMR (200 MHz, CDCl_3) δ 4.30 (s, 2H, benzylic), 7.18 (d, 2H, J 8.4 Hz, H2/H6), 7.51 (d, 2H, J 8.4 Hz, H3/H5); ^{13}C NMR (50 MHz, CDCl_3) δ 53.9 (benzylic), 122.2 (C4), 129.7 (C2/C6), 131.9 (C3/C5), 134.4 (C1).

1-(Azidomethyl)-4-iodobenzene (3e**)**

Yellow liquid; yield 85%; IR (ATR) ν/cm^{-1} 3026, 2931, 2912, 2857, 2120, 1585, 1481, 1058, 1007, 830, 796; ^1H NMR (200 MHz, CDCl_3) δ 4.29 (s, 2H, benzylic), 7.06 (d, 2H, J 8.2 Hz, H2/H6), 7.71 (d, 2H, J 8.2 Hz, H3/H5); ^{13}C NMR (50 MHz, CDCl_3) δ 54.2 (benzylic), 94.1 (C4), 130.0 (C2/C6), 135.1 (C1), 137.9 (C3/C5).

1-(Azidomethyl)-4-(trifluoromethoxy)benzene (3f**)**

Yellow liquid; yield 99%; IR (ATR) ν/cm^{-1} 2098, 1509, 1251, 1195, 1213, 1153, 1107, 1018, 1107, 1019, 847, 777; ^1H NMR (200 MHz, CDCl_3) δ 4.36 (s, 2H, benzylic), 7.25 (d, 2H, J 8.4 Hz, H3/H5), 7.36 (d, 2H, J 8.4 Hz, H2/H6); ^{13}C NMR (50 MHz, CDCl_3) δ 54.0 (benzylic), 120.7 (q, J 256 Hz, $-\text{CF}_3$), 121.4 (C3/C5), 129.7 (C2/C6), 134.4 (C1), 149.2 (C4).

1-(Azidomethyl)-4-(trifluoromethyl)benzene (3g**)**

Colorless liquid; yield 81%; IR (ATR) ν/cm^{-1} 2091, 1488, 1245, 1196, 1070, 1011, 1107, 834, 791; ^1H NMR (200 MHz, CDCl_3) δ 4.37 (s, 2H, benzylic), 7.40 (d, 2H, J 8.0 Hz, H2/H6), 7.61 (d, 2H, J 8.0 Hz, H3/H5); ^{13}C NMR (50 MHz, CDCl_3) δ 53.8 (benzylic), 124.1 (q, J 270 Hz, $-\text{CF}_3$), 125.5 (C3/C5), 128.1 (C2/C6), 130.2 (q, J 32 Hz, C4), 139.6 (C1).

1-(Azidomethyl)-3,4-(difluoro)benzene (3h**)**

Yellow liquid; yield 72%; IR (ATR) ν/cm^{-1} 2095, 1517, 1435, 1251, 1195, 1286, 1210, 1116, 779; ^1H NMR

(200 MHz, CDCl_3) δ 4.31 (s, 2H, benzylic), 7.00-7.23 (m, 2H, H2/H5/H6); ^{13}C NMR (50 MHz, CDCl_3) δ 53.6 (benzylic), 116.9-117.8 (m, C2/C5), 124.2-124.3 (m, C6), 132.6-132.8 (m, C1), 149.7 (m, C4), 152.5 (m, C3).

1-(Azidomethyl)-5-bromo-2-chlorobenzene (**3i**)

Yellow liquid; yield 92%; IR (ATR) ν/cm^{-1} 2097, 1459, 1391, 1043, 811; ^1H NMR (200 MHz, CDCl_3) δ 5.18 (s, 2H, benzylic), 7.21 (d, 1H, J 8.2 Hz, H3), 7.36 (d, 1H, J 8.2 Hz, H4), 7.53 (s, 1H, H6); ^{13}C NMR (50 MHz, CDCl_3) δ 51.6 (benzylic), 120.7 (C5), 130.9 (C4), 131.2 (C2), 132.3 (C3), 132.9 (C6), 135.4 (C1).

1-(Azidomethyl)-2,4,6-(trichloro)benzene (**3j**)

Yellow solid; m.p. 215 °C; yield 92%; IR (ATR) ν/cm^{-1} 2094, 1579, 1548, 1071, 853; ^1H NMR (200 MHz, CDCl_3) δ 4.60 (s, 2H, benzylic), 7.34 (s, 2H, H3/H5); ^{13}C NMR (50 MHz, CDCl_3) δ 51.6 (benzylic), 128.4 (C1), 130.3 (C3/C5), 135.3 (C4), 136.8 (C2/C6).

1-(Azido)-3-[1'-(4"-bromobenzyl)-1',2',3'-triazol-4'-yl]propyl (**7**)

White solid; m.p. 242 °C; yield 98%; IR (ATR) ν/cm^{-1} 3193, 3114, 2921, 2857, 2096, 1483, 1398, 1056, 1006, 797; ^1H NMR (200 MHz, CDCl_3) δ 1.80 (qn, 2H, J 5.6 Hz, H2), 2.69 (t, 2H, J 5.6 Hz, H3), 3.23 (t, 2H, J 5.8 Hz, H1), 5.36 (s, 2H, benzylic), 7.04 (d, 2H, J 7.8 Hz, H2"/H6"), 7.35 (d, 2H, J 7.8 Hz, H3"/H5"); 7.20 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 22.7 (C3), 28.5 (C2), 50.7 (benzylic), 53.4 (C1), 121.1 (C5'), 122.8 (C4"), 129.7 (C2"/C6"), 132.3 (C3"/C5"), 134.0 (C1"), 147.3 (C4').

3-(1'-Benzyl-1',2',3'-triazol-4'-yl)propan-1-ol (**4a**)

White solid; m.p. 215-220 °C; yield 79%; IR (ATR) ν/cm^{-1} 3293, 2972, 2880, 1379, 1087, 1045; ^1H NMR (200 MHz, CDCl_3) δ 1.85 (brs, 2H, H2), 2.74 (brs, 2H, H3), 3.62 (brs, 2H, H1), 5.42 (s, 2H, benzylic), 7.18-7.25 (brs, 4H, H2"/H3"/H5"/H6"), 7.29 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 22.0 (C3), 32.0 (C2), 54.0 (benzylic), 61.3 (C1), 121.2 (C5'), 128.0 (C2"/C6"), 128.6 (C4"), 129.1 (C3"/C5"), 134.8 (C1"), 148.4 (C4'); HRMS (ESI) m/z 218.1258 ([M + H], $\text{C}_{12}\text{H}_{16}\text{N}_3\text{O}$), 240.1080 ([M + Na], $\text{C}_{12}\text{H}_{15}\text{N}_3\text{ONa}$).

3-[1'-(4"-Fluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4b**)

White solid; m.p. 216-217 °C; yield 71%; IR (ATR) ν/cm^{-1} 3274, 3112, 3062, 2943, 2873, 1549, 1419, 1091, 1052, 821, 786; ^1H NMR (200 MHz, CDCl_3) δ 1.89 (qn, 2H, J 6 Hz, H2), 2.77 (t, 2H, J 6 Hz, H3), 3.65 (t, 2H, J 6 Hz, H1), 4.64 (brs, 1H, $-\text{OH}$), 5.45 (s, 2H, benzylic), 6.95-7.04 (m, 2H, H3"/H5"), 7.21-7.28 (m, 2H, H2"/H6").

7.42 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 21.7 (C3), 31.9 (C2), 52.9 (benzylic), 60.9 (C1), 115.6 (d, $J_{\text{C}-\text{F}}$ 22 Hz, C3"/C5"), 121.0 (C5'), 127.6 (d, $J_{\text{C}-\text{F}}$ 8 Hz, C2"/C6"), 130.7 (d, $J_{\text{C}-\text{F}}$ 3 Hz, C1"), 147.9 (C4'), 162.4 (d, $J_{\text{C}-\text{F}}$ 246 Hz, C4"); HRMS (ESI) m/z 236.1165 ([M + H], $\text{C}_{12}\text{H}_{15}\text{FN}_3\text{O}$), 258.0982 ([M + Na], $\text{C}_{12}\text{H}_{14}\text{FN}_3\text{ONa}$).

3-[1'-(4"-Chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4c**)

White solid; 230-235 °C; yield 73%; IR (ATR) ν/cm^{-1} 3297, 3115, 3063, 2938, 2866, 1492, 1434, 1033, 907, 761; ^1H NMR (200 MHz, CDCl_3) δ 1.72 (qn, 2H, J 6.4 Hz, H2), 2.61 (t, 2H, J 6.4 Hz, H3), 3.48 (t, 2H, J 6.4 Hz, H1), 4.35 (brs, 1H, $-\text{OH}$), 5.27 (s, 2H, benzylic), 7.02 (d, 2H, J 8.3 Hz, H2"/H6"), 7.11 (d, 2H, J 8.3 Hz, H3"/H5"), 7.31 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 21.9 (C3), 31.9 (C2), 53.2 (benzylic), 61.1 (C1), 121.2 (C5'), 128.7 (C3"/C5"), 129.1 (C2"/C6"), 133.3 (C1"), 134.0 (C4"), 147.8 (C4'); HRMS (ESI) m/z 252.0875 ([M + H], $\text{C}_{12}\text{H}_{15}\text{ClN}_3\text{O}$), 274.0700 ([M + Na], $\text{C}_{12}\text{H}_{14}\text{ClN}_3\text{ONa}$).

3-[1'-(4"-Bromobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4d**)

White solid; 237-240 °C; yield 55%; IR (ATR) ν/cm^{-1} 3278, 3133, 2942, 1489, 1430, 1046, 1011, 795, 764; ^1H NMR (200 MHz, CDCl_3) δ 1.88 (qn, 2H, J 6.8 Hz, H2), 2.77 (t, 2H, J 6.8 Hz, H3), 3.64 (t, 2H, J 6.8 Hz, H1), 4.48 (brs, 1H, $-\text{OH}$), 5.42 (s, 2H, benzylic), 7.11 (d, 2H, J 8.3 Hz, H2"/H6"), 7.35 (s, 1H, H5'), 7.45 (d, 2H, J 8.3 Hz, H3"/H5"); ^{13}C NMR (50 MHz, CDCl_3) δ 21.9 (C3), 31.9 (C2), 53.2 (benzylic), 61.1 (C1), 121.2 (C5'), 122.6 (C4"), 129.6 (C2"/C6"), 132.1 (C3"/C5"), 133.9 (C1"), 148.2 (C4'); HRMS (ESI) m/z 296.0389 ([M + H], $\text{C}_{12}\text{H}_{15}\text{BrN}_3\text{O}$), 318.0218 ([M + Na], $\text{C}_{12}\text{H}_{14}\text{BrN}_3\text{ONa}$).

3-[1'-(4"-Iodobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4e**)

White solid; m.p. 238-241 °C; yield 90%; IR (ATR) ν/cm^{-1} 3253, 3113, 3062, 2944, 2925, 1548, 1484, 1051, 1008, 758; ^1H NMR (200 MHz, CDCl_3) δ 1.87 (brs, 2H, H2), 2.76 (brs, 2H, H3), 3.63 (brs, 2H, H1), 4.34 (brs, 1H, $-\text{OH}$), 5.40 (s, 2H, benzylic), 6.97 (d, 2H, J 7.9 Hz, H2"/H6"), 7.37 (s, 1H, H5'), 7.62 (d, 2H, J 7.9 Hz, H3"/H5"); ^{13}C NMR (50 MHz, CDCl_3) δ 21.8 (C3), 31.8 (C2), 53.1 (benzylic), 60.9 (C1), 94.6 (C4"), 121.2 (C5'), 129.6 (C2"/C6"), 134.4 (C1"), 137.8 (C3"/C5"), 148.0 (C4'); HRMS (ESI) m/z 344.0239 ([M + H], $\text{C}_{12}\text{H}_{15}\text{IN}_3\text{O}$), 366.0070 ([M + Na], $\text{C}_{12}\text{H}_{14}\text{IN}_3\text{ONa}$).

3-[1'-(4"-Trifluoromethoxybenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4f**)

White solid; m.p. 215-220 °C; yield 44%; IR (ATR) ν/cm^{-1} 3292, 3119, 3072, 2946, 2931, 1511, 1232, 1199, 1214, 1162, 1046, 1021, 842, 777; ^1H NMR (200 MHz,

CDCl_3) δ 1.90 (brs, 2H, H2), 2.80 (brs, 2H, H3), 3.66 (brs, 2H, H1), 3.98 (brs, 1H, $-\text{OH}$), 5.49 (s, 2H, benzylic), 7.19 (d, 2H, J 8.0 Hz, H3''/H5''), 7.30 (d, 2H, J 8.0 Hz, H2''/H6''), 7.39 (brs, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 22.00 (C3), 32.04 (C2), 53.08 (benzylic), 61.3 (C1), 120.4 (q, $J_{\text{C-F}}$ 256.0 Hz, $-\text{OCF}_3$), 121.3 (C3''/C5''), 121.3 (C4' or C4''), 129.5 (C2''/C6''), 133.7 (C5'), 149.1 (C1''), 149.1 (C4' or C4''); HRMS (ESI) m/z 302.1084 ([M + H], $\text{C}_{13}\text{H}_{15}\text{F}_3\text{N}_3\text{O}_2$), 324.0911 ([M + Na], $\text{C}_{13}\text{H}_{14}\text{F}_3\text{N}_3\text{O}_2\text{Na}$).

3-[1'-(4"-Trifluoromethylbenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4g**)

White solid; m.p. 216-220 °C; yield 80%; IR (ATR) ν/cm^{-1} 3342, 2946, 1219, 1163, 1066, 1018, 822, 779; ^1H NMR (200 MHz, CDCl_3) δ 1.87 (qn, 2H, J 6.4 Hz, H2), 2.78 (t, 2H, J 6.4 Hz, H3), 3.15 (brs, 1H, $-\text{OH}$), 3.64 (t, 2H, J 6.4 Hz, H1), 5.53 (s, 2H, benzylic), 7.31 (brs, 1H, H5'), 7.32 (d, 2H, J 7.9 Hz, H2''/H6''), 7.58 (d, 2H, J 7.9 Hz, H3''/H5''); ^{13}C NMR (50 MHz, CDCl_3) δ 22.0 (C3), 32.1 (C2), 53.5 (benzylic), 61.5 (C1), 121.4 (C5'), 123.7 (q, $J_{\text{C-F}}$ 247.0 Hz, $-\text{CF}_3$), 126.1 (C3''/C5''), 130.9 (q, J 31 Hz, C4''), 128.4 (C2''/C6''), 138.9 (C1''), 148.5 (C4'); HRMS (ESI) m/z 286.1124 ([M + H], $\text{C}_{13}\text{H}_{15}\text{F}_3\text{N}_3\text{O}$), 308.0982 ([M + Na], $\text{C}_{13}\text{H}_{14}\text{F}_3\text{N}_3\text{O}_2\text{Na}$).

3-[1'-(3",4"-Difluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4h**)

Yellow solid; m.p. 215-219 °C; yield 74%; IR (ATR) ν/cm^{-1} 3358, 2936, 1519, 1286, 1214, 1114, 1054, 781; ^1H NMR (200 MHz, CDCl_3) δ 1.88 (qn, 2H, J 7.0 Hz, H2), 2.77 (t, 2H, J 7.0 Hz, H3), 3.67 (t, 2H, J 7.0 Hz, H1), 5.40 (s, 2H, benzylic), 6.95-7.11 (m, 2H, H2''/H5''/H6''), 7.49 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 21.7 (C3), 31.85 (C2), 52.9 (benzylic), 60.9 (C1), 117.0 (d, $J_{\text{C-F}}$ 17 Hz, C2''), 117.9 (d, $J_{\text{C-F}}$ 17 Hz, C5''), 120.8 (C4''), 124.0 (dd, $J_{\text{C-F}}$ 4 Hz, 7 Hz, C6''), 123.1 (C5'), 131.7 (t, $J_{\text{C-F}}$ 5 Hz, C1''), 150.0 (dd, $J_{\text{C-F}}$ 250 Hz, 15 Hz, C4''), 150.5 (dd, $J_{\text{C-F}}$ 250 Hz, 14 Hz, C3''); HRMS (ESI) m/z 254.1066 ([M + H], $\text{C}_{12}\text{H}_{14}\text{F}_2\text{N}_3\text{O}$), 276.0902 ([M + Na], $\text{C}_{12}\text{H}_{13}\text{F}_2\text{N}_3\text{O}_2\text{Na}$).

3-[1'-(5"-Bromo-2"-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4i**)

White solid; m.p. 237-239 °C; yield 64%; IR (ATR) ν/cm^{-1} 3363, 3124, 2950, 1472, 1045, 807; ^1H NMR (200 MHz, CDCl_3) δ 1.81 (brs, 2H, H2), 2.71 (brs, 2H, H3), 3.57 (brs, 2H, H1), 4.08 (brs, 1H, $-\text{OH}$), 5.43 (s, 2H, benzylic), 7.10-7.35 (m, 2H, H3''/H4''/H6''), 7.39 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 21.9 (C3), 31.9 (C2), 50.6 (benzylic), 61.1 (C1), 120.9 (C5''), 131.1 (C4''), 132.6

(C3''), 132.0 (C2''), 132.9 (C6''), 134.5 (C1''), 148.1 (C4'); HRMS (ESI) m/z 331.9966 ([M + H], $\text{C}_{12}\text{H}_{14}\text{BrClN}_3\text{O}$), 353.9776 ([M + Na], $\text{C}_{12}\text{H}_{13}\text{BrClN}_3\text{ONa}$).

3-[1'-(2",4",6"-Trichlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4j**)

Yellow solid; m.p. 242-246 °C; yield 67%; IR (ATR) ν/cm^{-1} 3341, 3131, 2949, 1581, 1549, 1071, 869; ^1H NMR (200 MHz, CDCl_3) δ 1.89 (brs, 2H, H2), 2.78 (brs, 2H, H3), 3.17 (brs, 1H, $-\text{OH}$), 3.67 (brs, 2H, H1), 5.76 (s, 2H, benzylic), 7.20-7.40 (m, 2H, H3''/H5''/H5''); ^{13}C NMR (50 MHz, CDCl_3) δ 22.1 (C3), 32.1 (C2), 48.5 (benzylic), 61.7 (C1), 121.1 (C5'), 128.8 (C3''/C5''), 128.8 (C1''), 136.3 (C4''), 137.4 (C2''/C6''), 147.7 (C4'); HRMS (ESI) m/z 320.0102 ([M + H], $\text{C}_{12}\text{H}_{13}\text{Cl}_3\text{N}_3\text{O}$), 341.9944 ([M + Na], $\text{C}_{12}\text{H}_{13}\text{Cl}_3\text{N}_3\text{ONa}$).

(1'-Benzyl-1',2',3'-triazol-4'-yl)methanol (**5a**)

White solid; m.p. 215-220 °C; yield 87%; IR (ATR) ν/cm^{-1} 3253, 3116, 3064, 1489, 1038, 1011; ^1H NMR (200 MHz, CDCl_3) δ 4.11 (brs, 1H, $-\text{OH}$), 4.67 (s, 2H, H1), 5.43 (s, 2H, benzylic), 7.30 (brs, 5H, H2''/H3''/H4''/H5''/H6''), 7.43 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 54.3 (benzylic), 56.1 (C1), 122.0 (C5'), 128.2 (C2''/C6''), 128.9 (C4''), 129.2 (C3''/C5''), 134.6 (C1''), 148.4 (C4'); HRMS (ESI) m/z 190.0939 ([M + H], $\text{C}_{10}\text{H}_{12}\text{N}_3\text{O}$), 212.0767 ([M + Na], $\text{C}_{10}\text{H}_{11}\text{N}_3\text{ONa}$).

[1'-(4"-Bromobenzyl)-1',2',3'-triazol-4'-yl]methanol (**5b**)

White solid; m.p. 222-224 °C; yield 49%; IR (ATR) ν/cm^{-1} 3253, 3116, 3064, 1489, 1038, 1011; ^1H NMR (200 MHz, CDCl_3) δ 4.26 (brs, 1H, $-\text{OH}$), 4.65 (s, 2H, H1), 5.43 (s, 2H, benzylic), 7.11 (d, 2H, J 8.4 Hz, H2''/H6''), 7.42 (d, 2H, J 8.4 Hz, H3''/H5''), 7.63 (s, 1H, H5'); ^{13}C NMR (50 MHz, CDCl_3) δ 53.1 (benzylic), 55.3 (C1), 122.2 (C5'), 122.5 (C4''), 129.5 (C2''/C6''), 131.9 (C3''/C5''), 133.5 (C1''), 148.2 (C4'); HRMS (ESI) m/z 268.1549 ([M + H], $\text{C}_{10}\text{H}_{10}\text{BrN}_3\text{O}$).

3-(1'-(3"-[(4"-Bromobenzyl)-1",2",3"-triazol-4"-yl]propyl)-1',2',3'-triazol-4'-yl)propan-1-ol (**8**)

White solid; m.p. 240-245 °C; yield 87%; IR (ATR) ν/cm^{-1} 3329, 3138, 3115, 2949, 2873, 1489, 1431, 1048, 1006, 796; ^1H NMR (200 MHz, CDCl_3) δ 1.87 (qn, 2H, J 6.8 Hz, H2), 2.15 (qn, 2H, J 6.8 Hz, H2''), 2.58 (t, 2H, J 6.8 Hz, H3''), 2.70 (t, 2H, J 6.8 Hz, H3), 3.58 (t, 2H, J 6.8 Hz, H1), 4.12 (brs, 1H, $-\text{OH}$), 4.27 (t, 2H, J 6.8 Hz, H1''), 5.36 (s, 2H, benzylic), 7.05 (d, 2H, J 7.6 Hz, H2''''/H6''''), 7.33 (d, 2H, J 7.6 Hz, H3''''/H5''''), 7.38 (brs, 2H, H5'/H5'''); ^{13}C NMR (50 MHz, CDCl_3) δ 21.9 (C3), 22.2 (C3''), 29.5 (C2''), 32.0 (C2), 49.0 (C1''), 53.2 (benzylic),

61.1 (C1), 121.5 (C5'/C5''), 122.6 (C4'''), 129.61 (C2''')/
C6'''), 132.1 (C3''''/C5'''), 133.8 (C1'''), 146.5 (C4'),
147.5 (C4'''); HRMS (ESI) m/z 405.1080 ([M + H],
 $C_{17}H_{22}BrN_6O$, 427.0853 ([M + Na], $C_{17}H_{22}BrN_6ONa$).

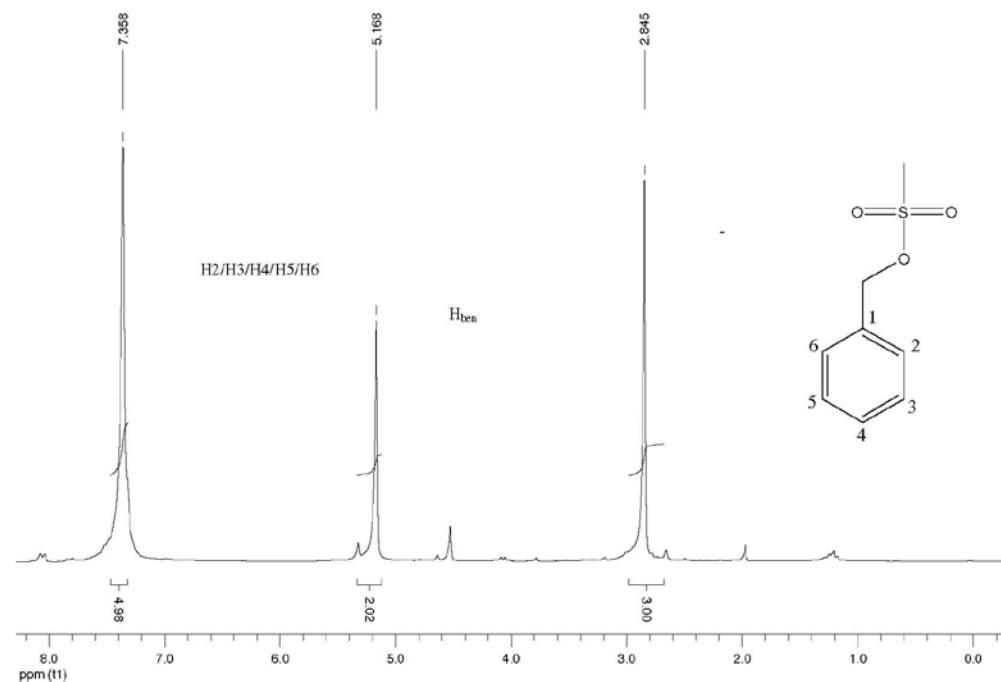
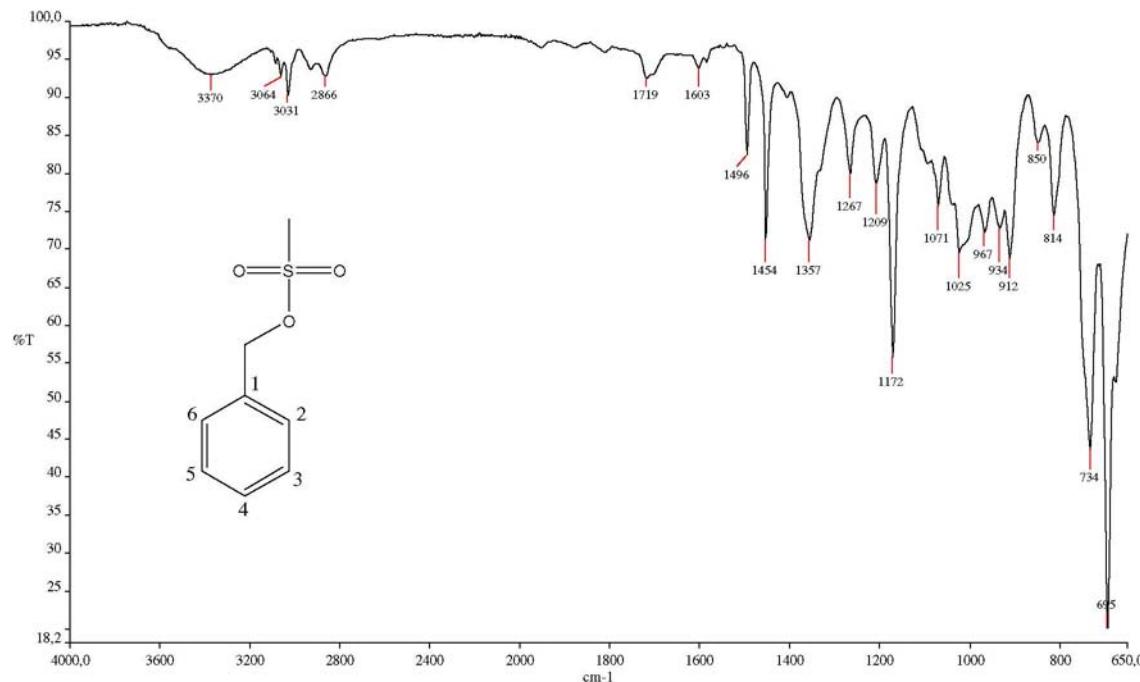


Figure S2. ^1H NMR spectrum (200 MHz, CDCl_3) of benzyl methanesulfonate (**2a**).

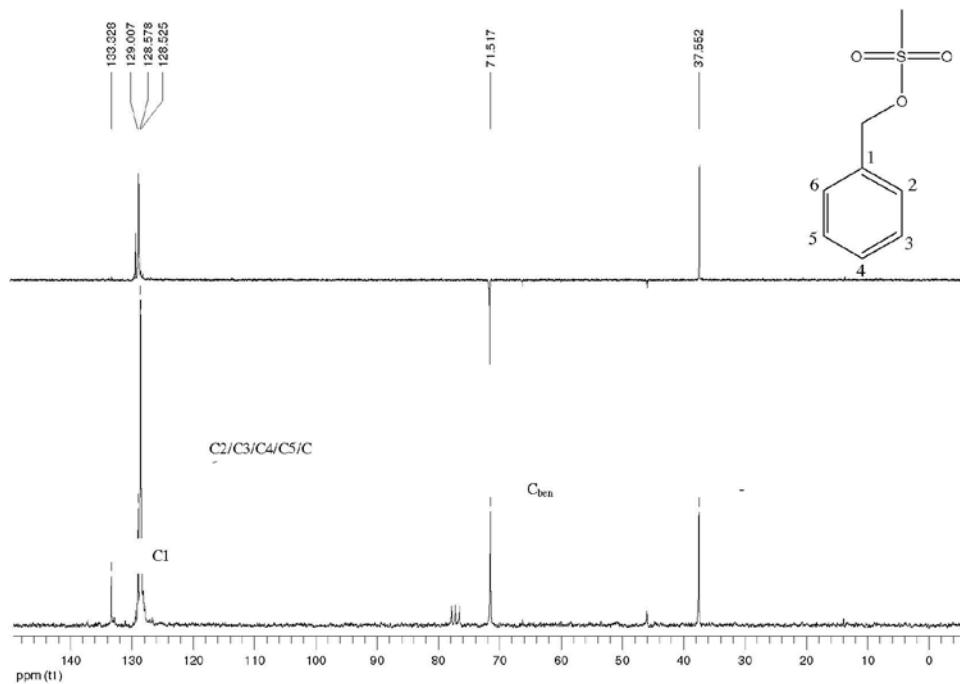


Figure S3. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of benzyl methanesulfonate (**2a**).

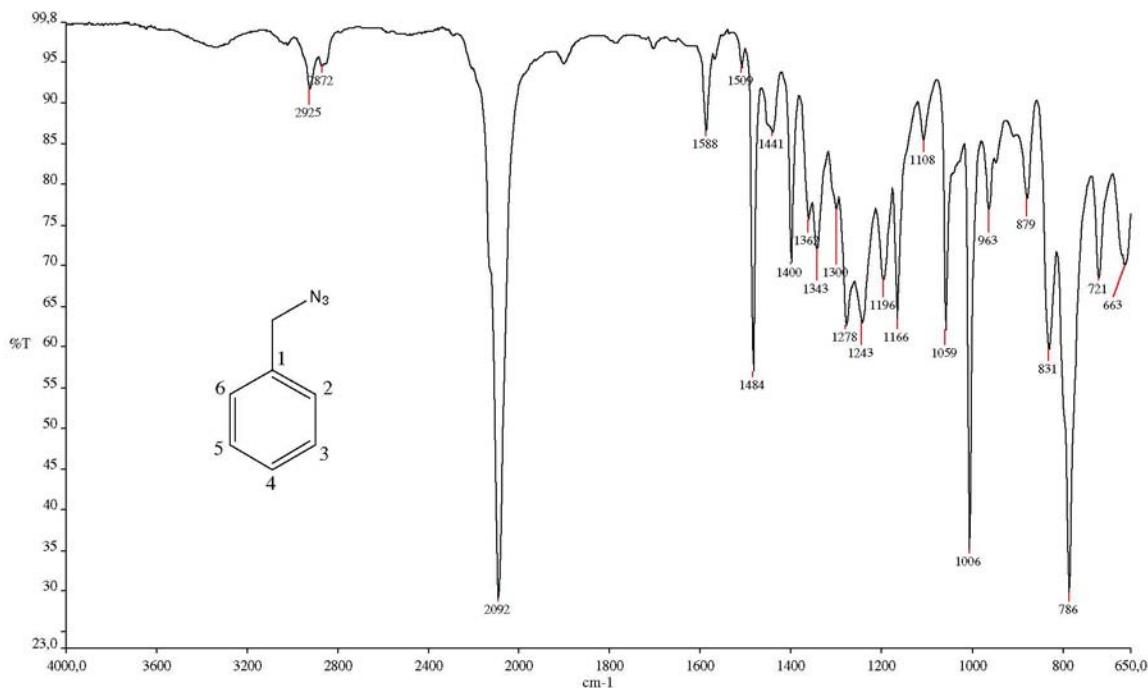


Figure S4. IR (ATR) spectrum of 1-(azidomethyl)benzene (**3a**).

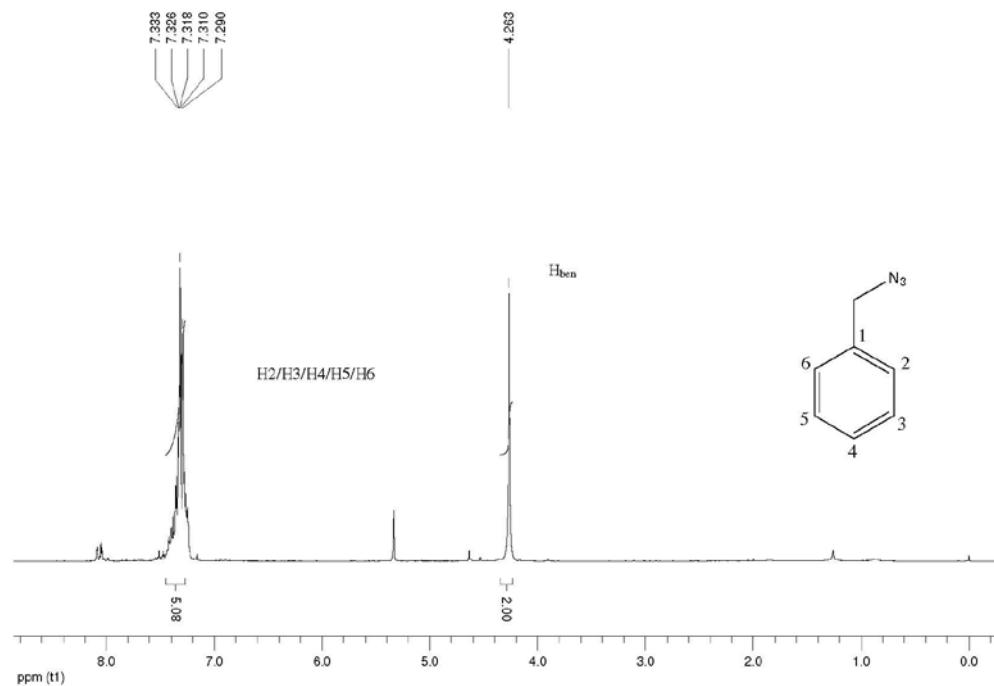


Figure S5. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)benzene (**3a**).

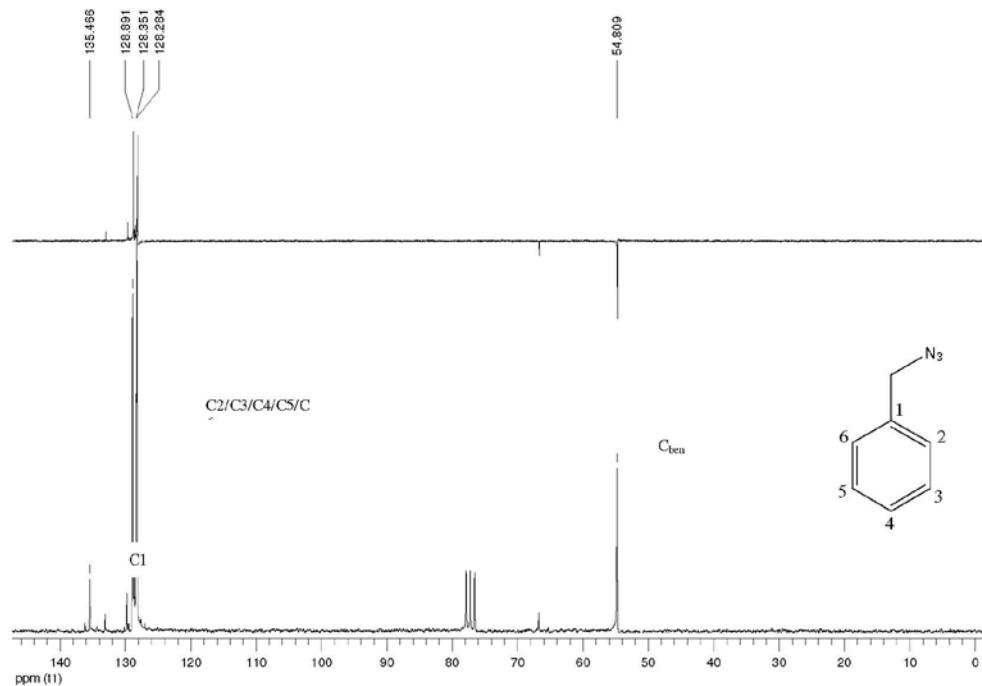


Figure S6. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)benzene (**3a**).

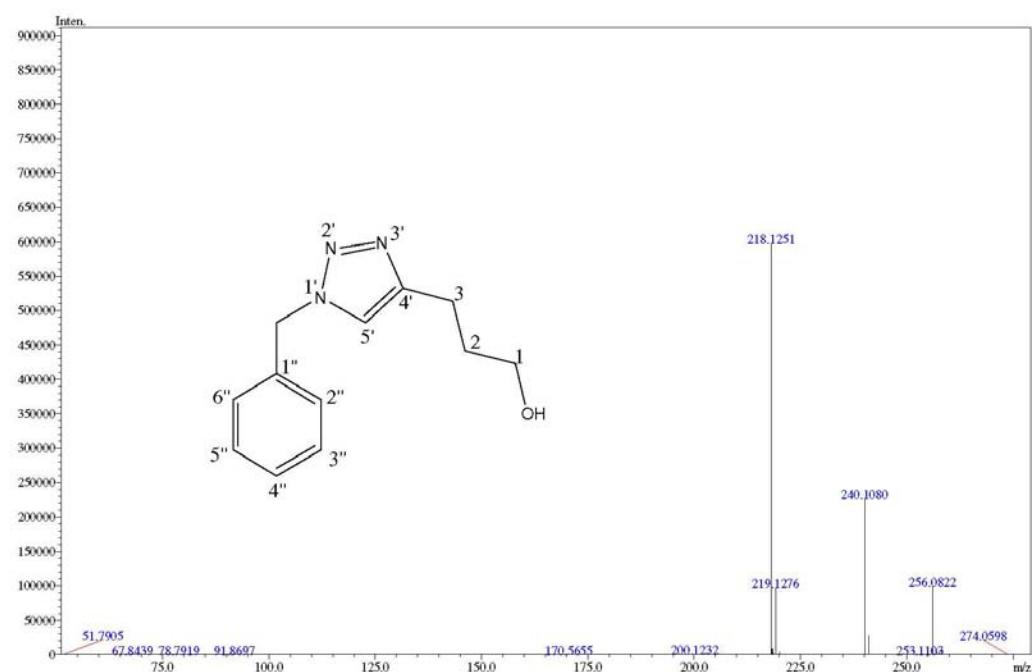


Figure S7. HRMS spectrum of 3-(1'-benzyl-1',2',3'-triazol-4'-yl)propan-1-ol (**4a**).

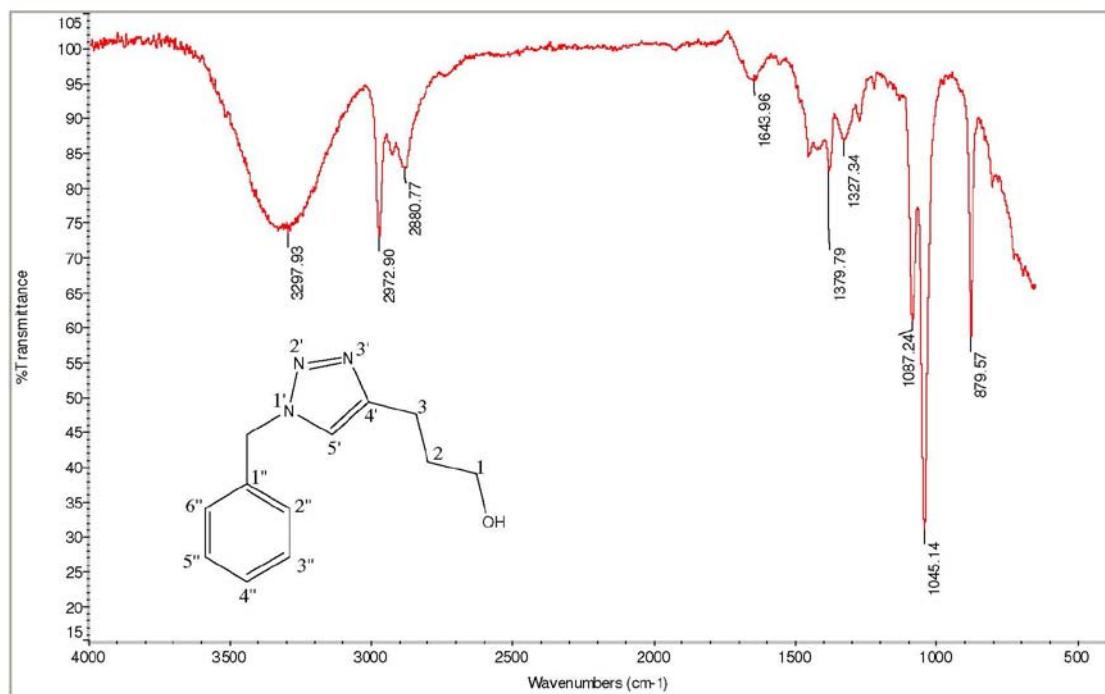


Figure S8. IR (ATR) spectrum of 3-(1'-benzyl-1',2',3'-triazol-4'-yl)propan-1-ol (**4a**).

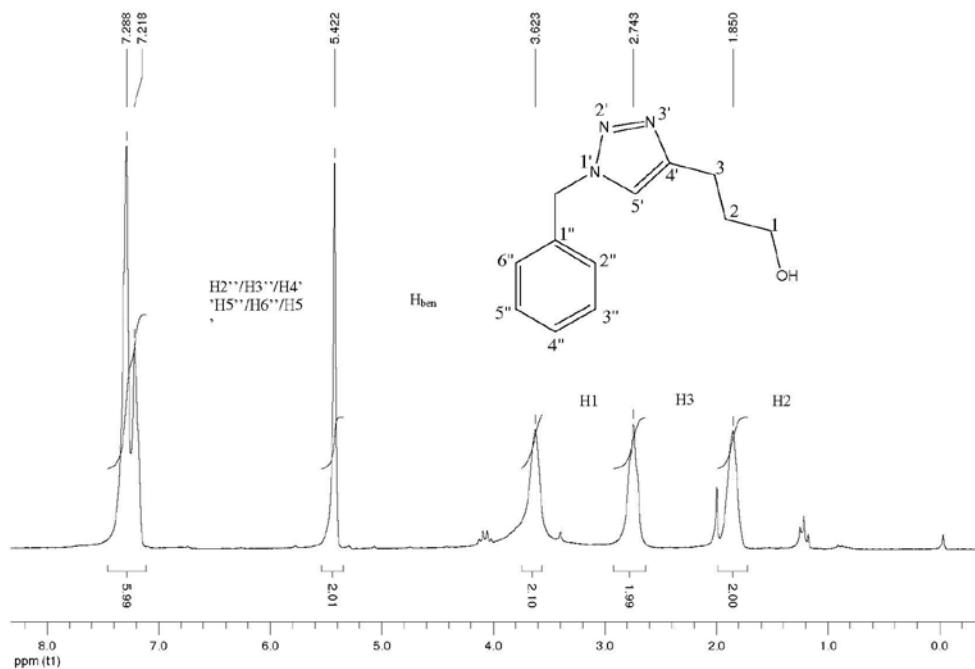


Figure S9. ¹H NMR spectrum (200 MHz, CDCl₃) of 3-(1'-benzyl-1',2',3'-triazol-4'-yl)propan-1-ol (**4a**).

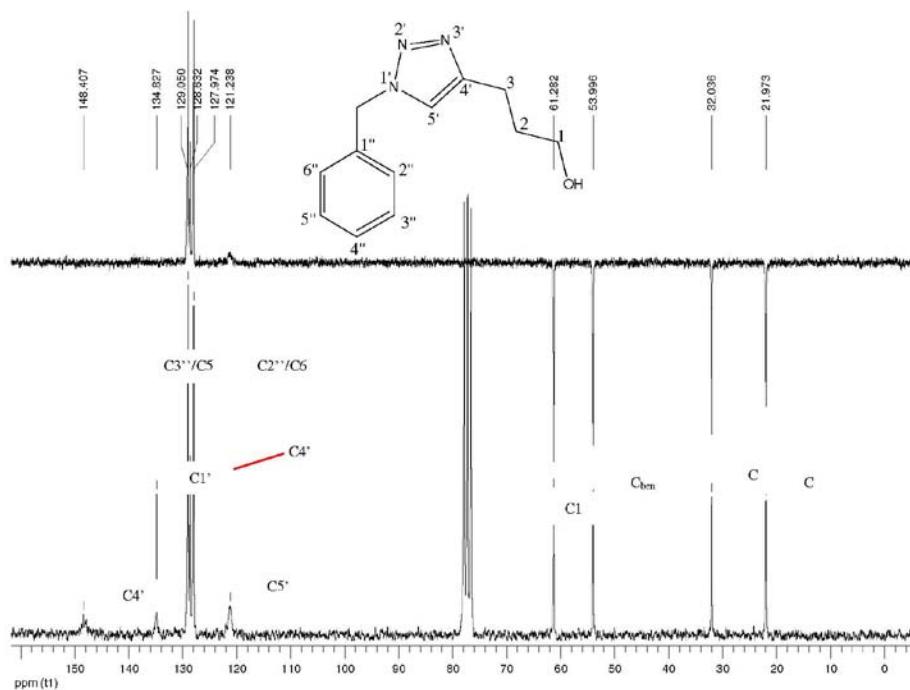


Figure S10. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 3-(1'-benzyl-1',2',3'-triazol-4'-yl)propan-1-ol (**4a**).



Figure S11. IR (ATR) spectrum of 4-fluorobenzyl methanesulfonate (**2b**).

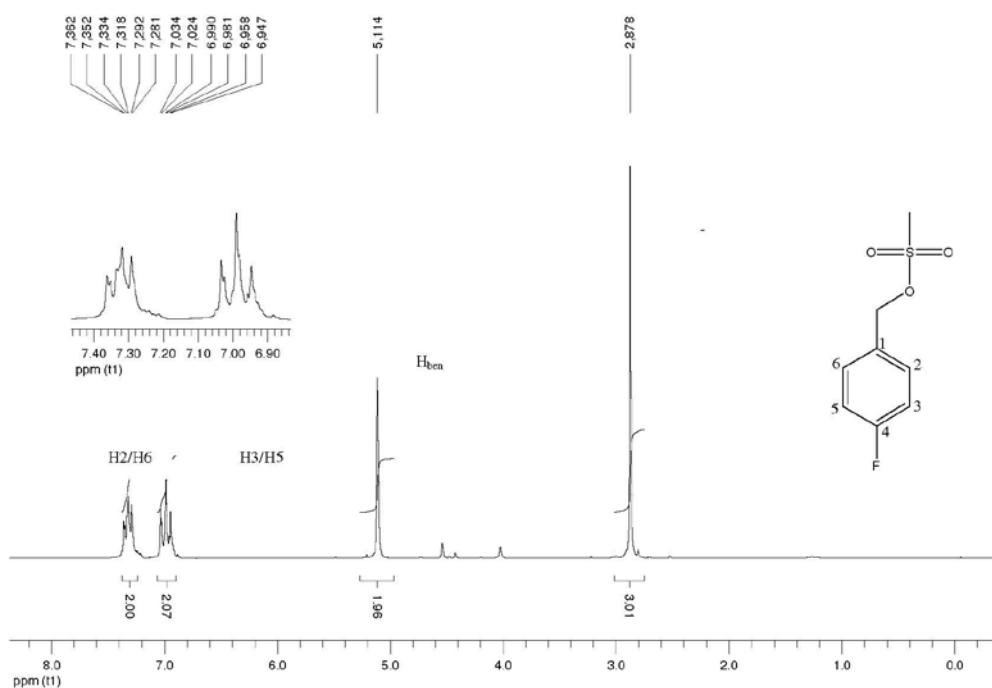


Figure S12. ¹H NMR spectrum (200 MHz, CDCl_3) of 4-fluorobenzyl methanesulfonate (**2b**).

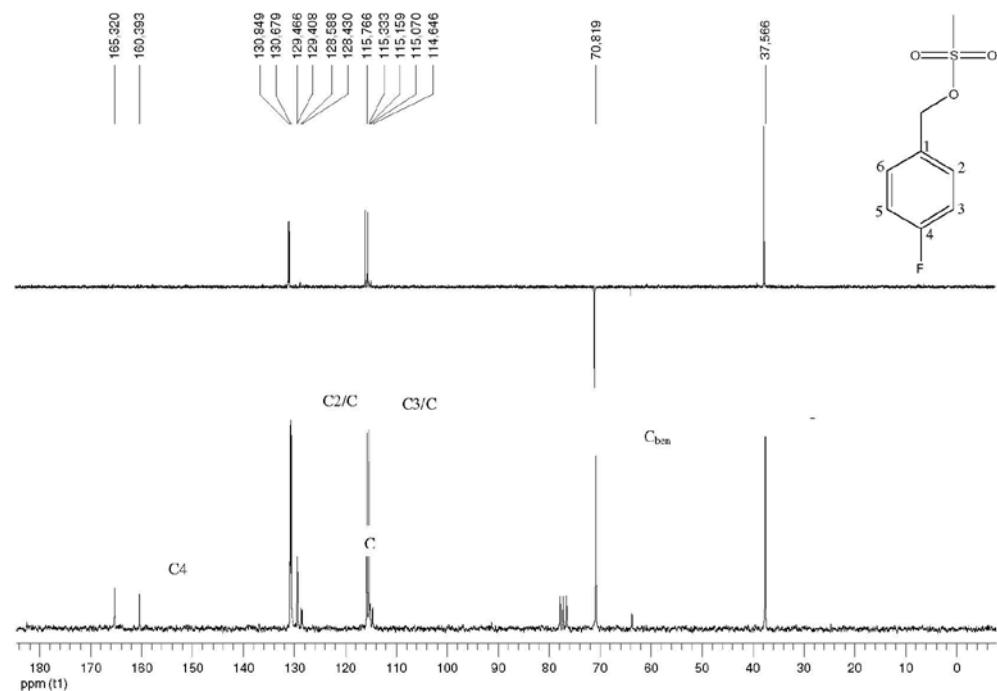


Figure S13. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 4-fluorobenzyl methanesulfonate (**2b**).

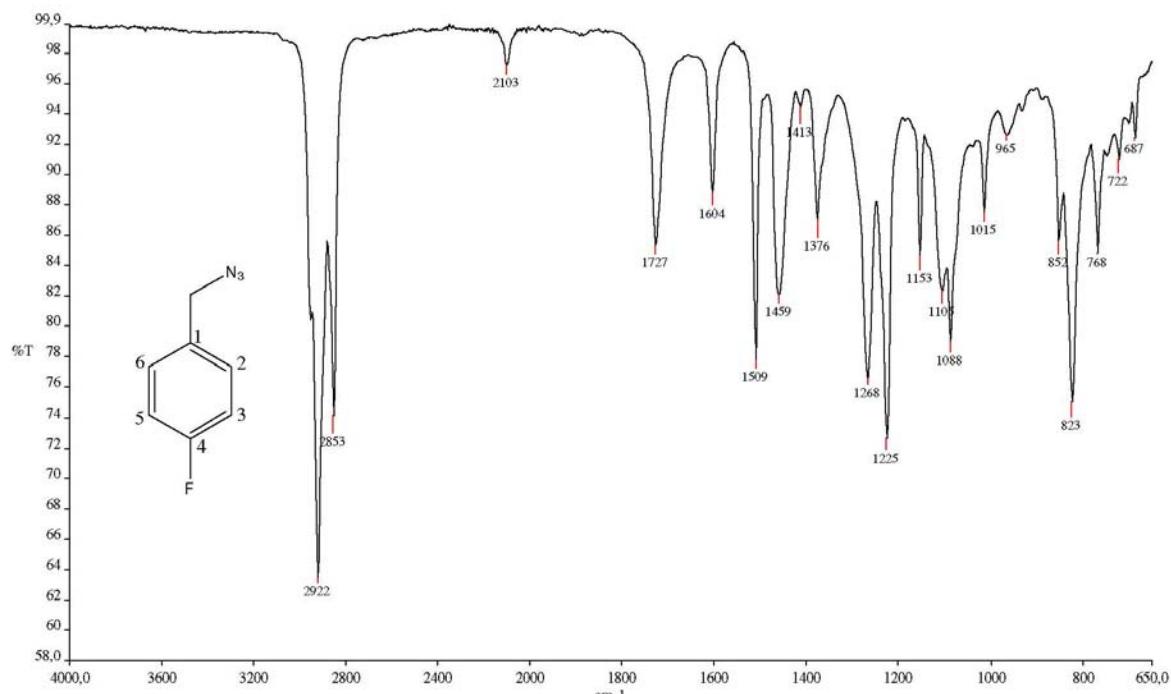


Figure S14. IR (ATR) spectrum of 1-(azidomethyl)-4-fluorobenzene (**3b**).

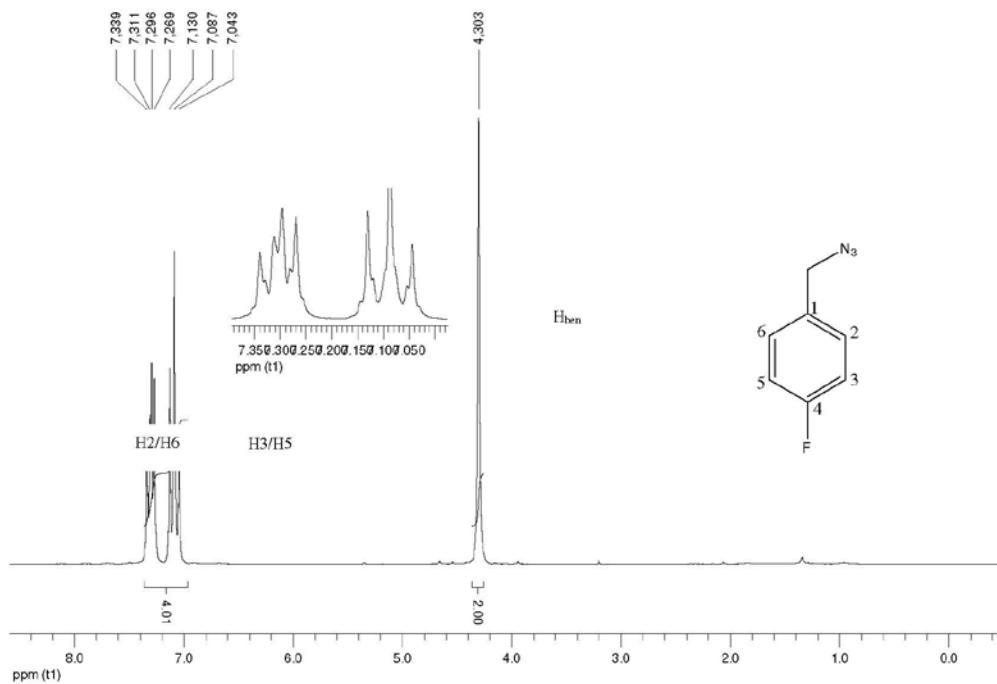


Figure S15. ^1H NMR spectrum (200 MHz, CDCl_3) of 1-(azidomethyl)-4-fluorobenzene (**3b**).

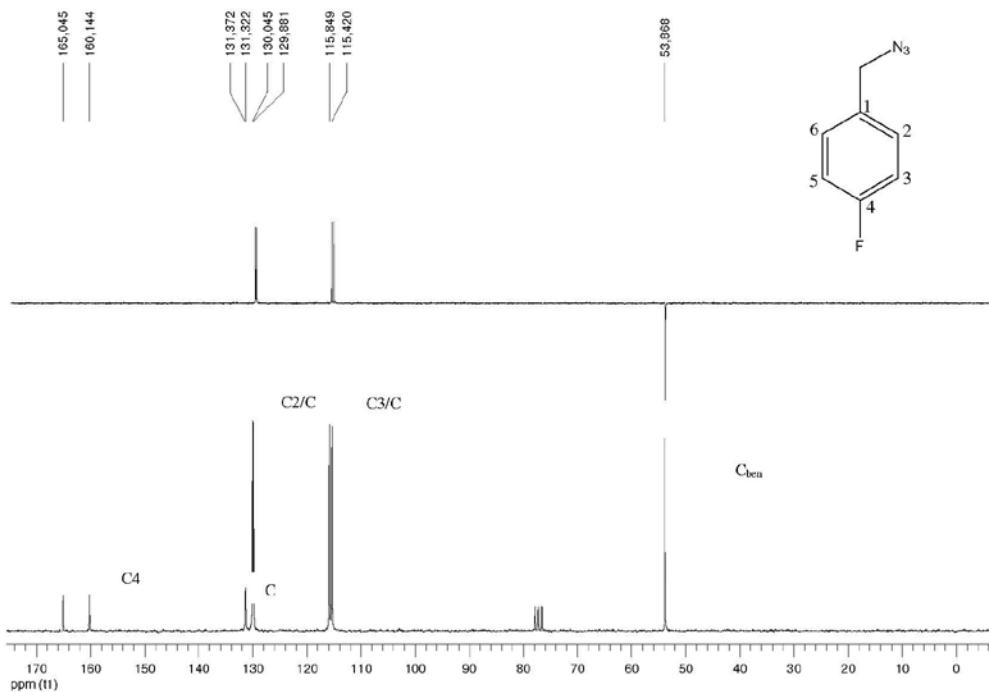


Figure S16. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 1-(azidomethyl)-4-fluorobenzene (**3b**).

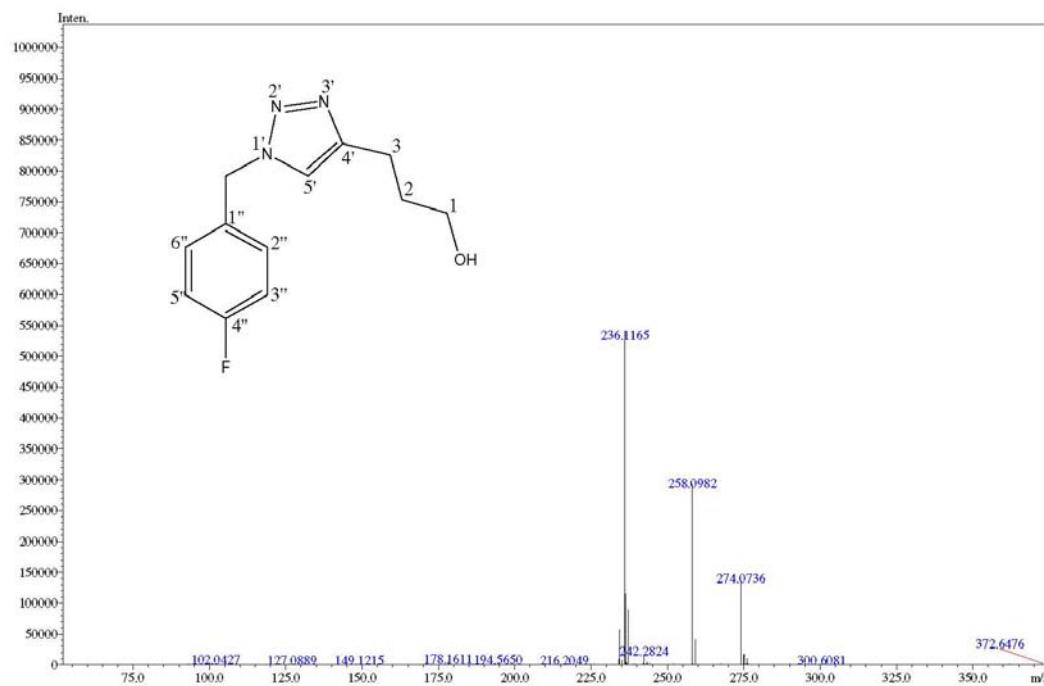


Figure S17. HRMS spectrum of 3-[1'-(4''-fluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4b**).

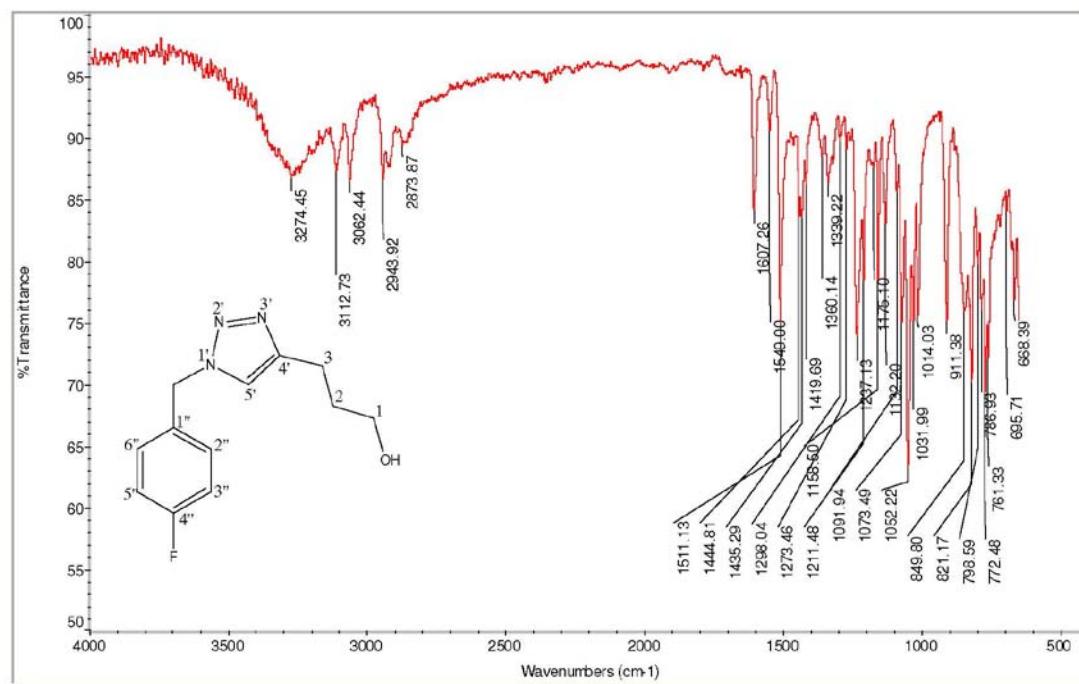


Figure S18. IR (ATR) spectrum of 3-[1'-(4''-fluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4b**).

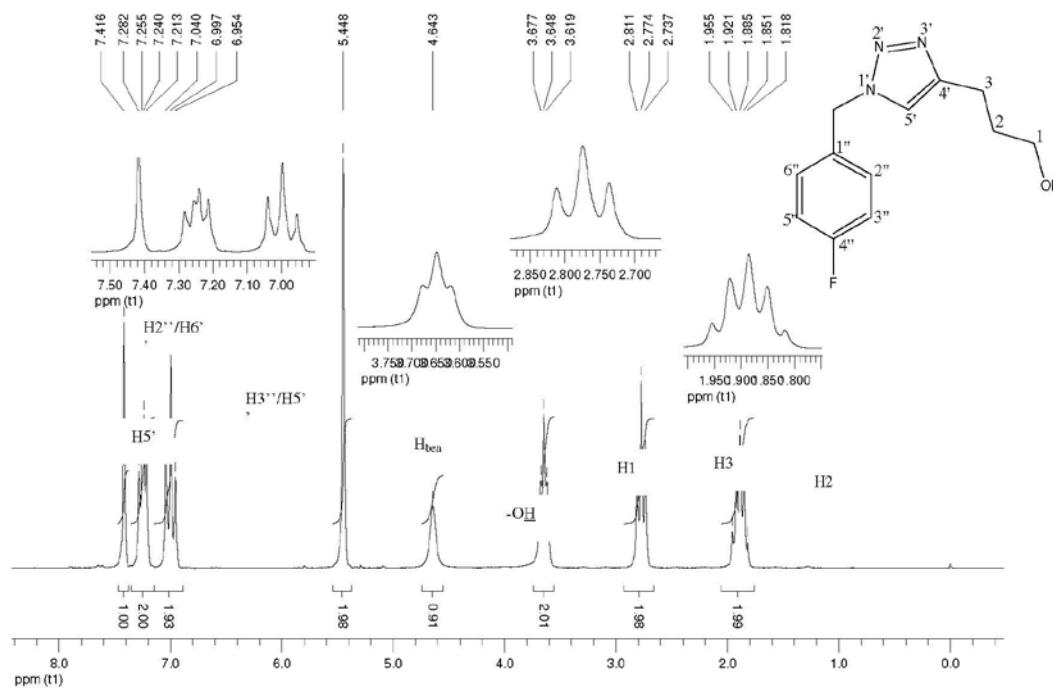


Figure S19. ^1H NMR spectrum (200 MHz, CDCl_3) of 3-[1'-(4''-fluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4b**).

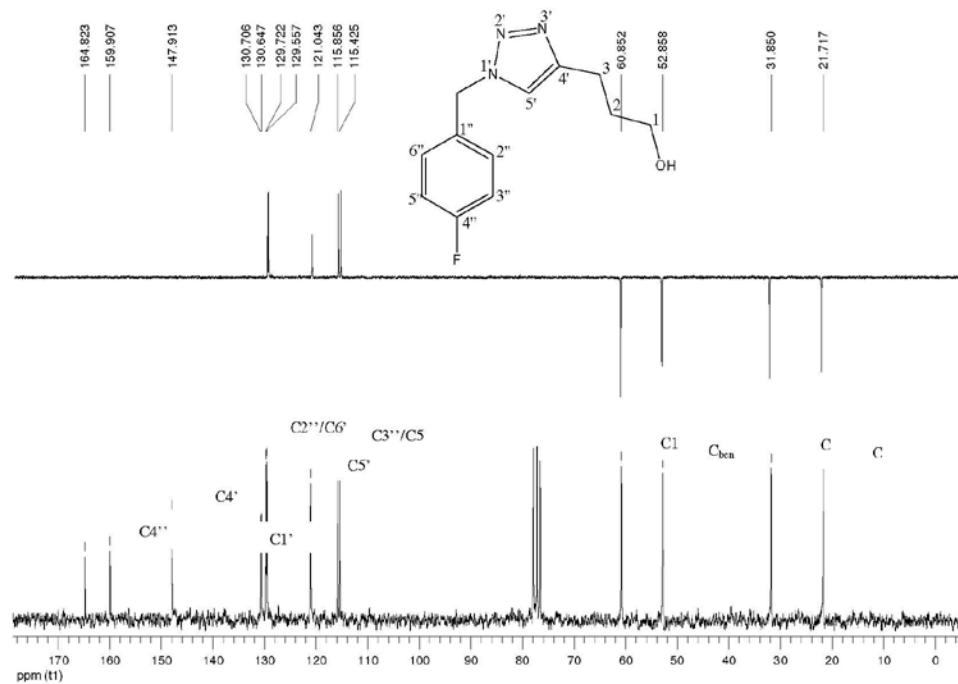


Figure S20. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 3-[1'-(4''-fluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4b**).

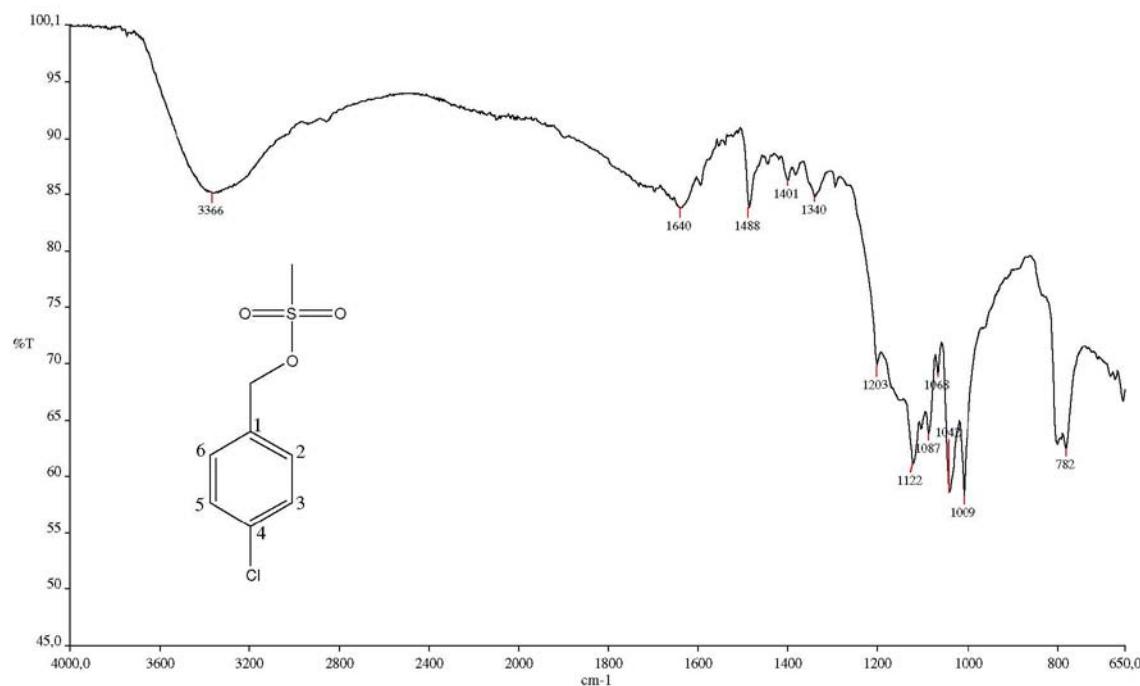


Figure S21. IR (ATR) spectrum of 4-chlorobenzyl methanesulfonate (**2c**).

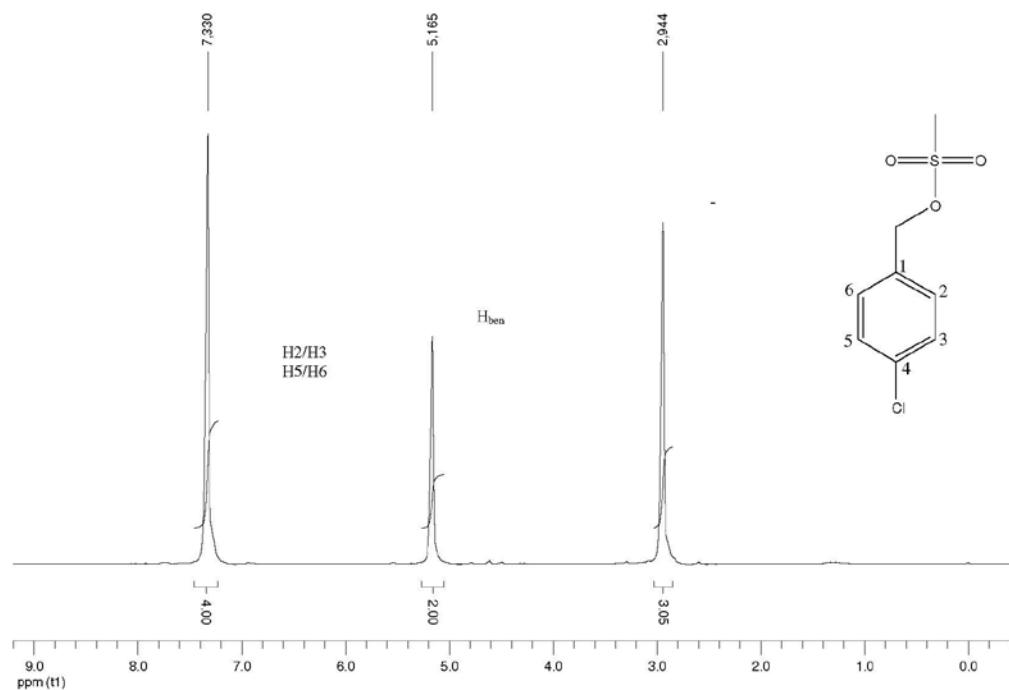


Figure S22. ¹H NMR spectrum (200 MHz, CDCl₃) of 4-chlorobenzyl methanesulfonate (**2c**).

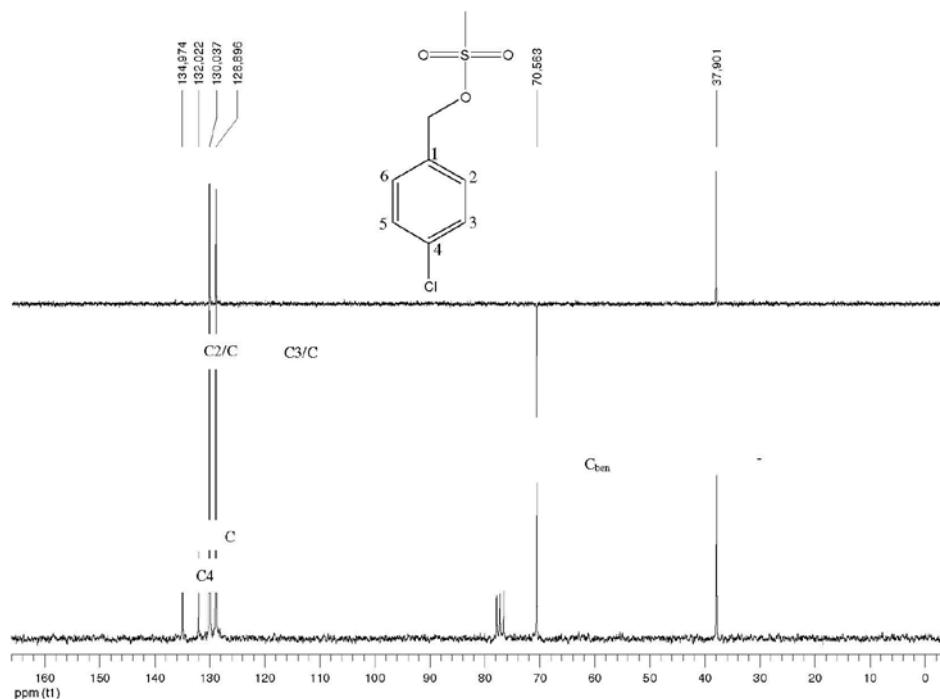


Figure S23. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 4-chlorobenzyl methanesulfonate (**2c**).

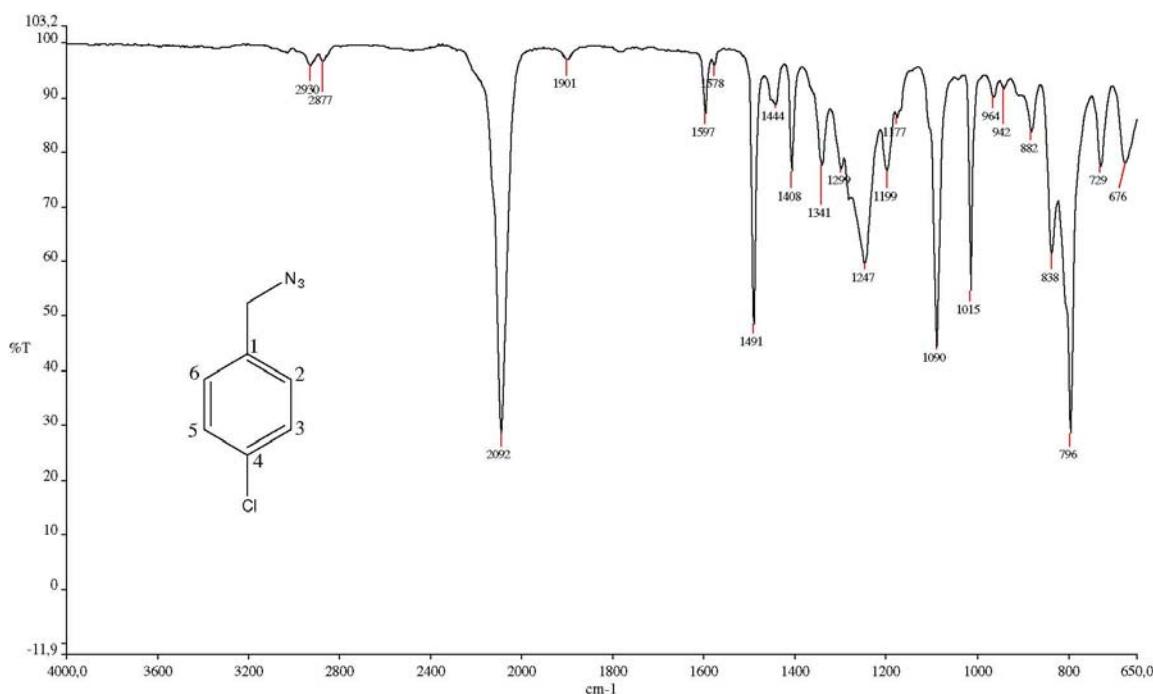


Figure S24. IR (ATR) spectrum of 1-(azidomethyl)-4-chlorobenzene (**3c**).

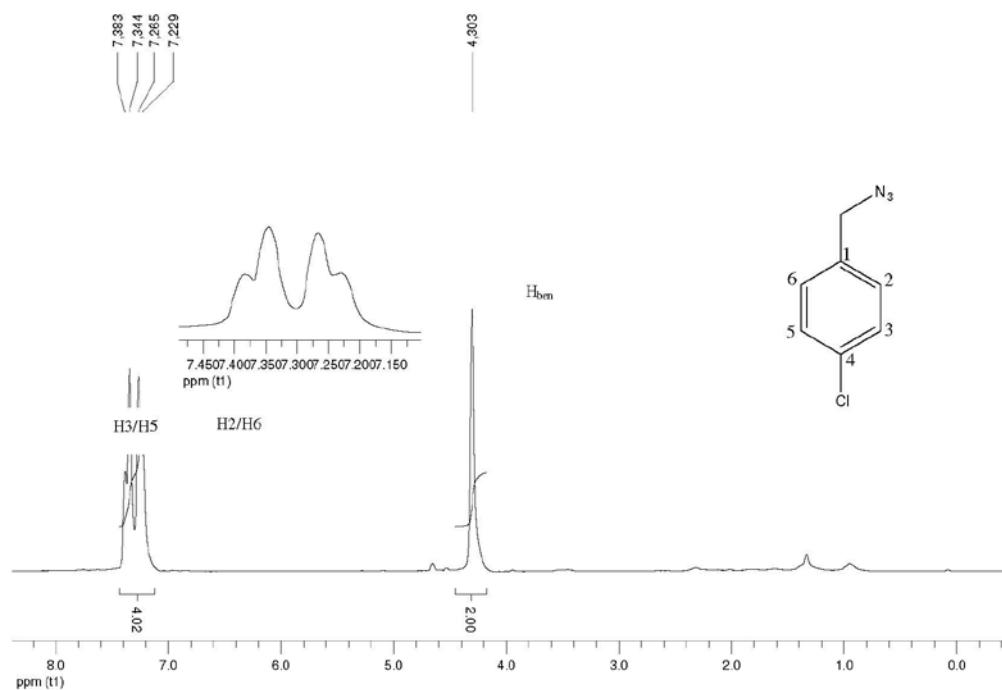


Figure S25. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)-4-chlorobenzene (**3c**).

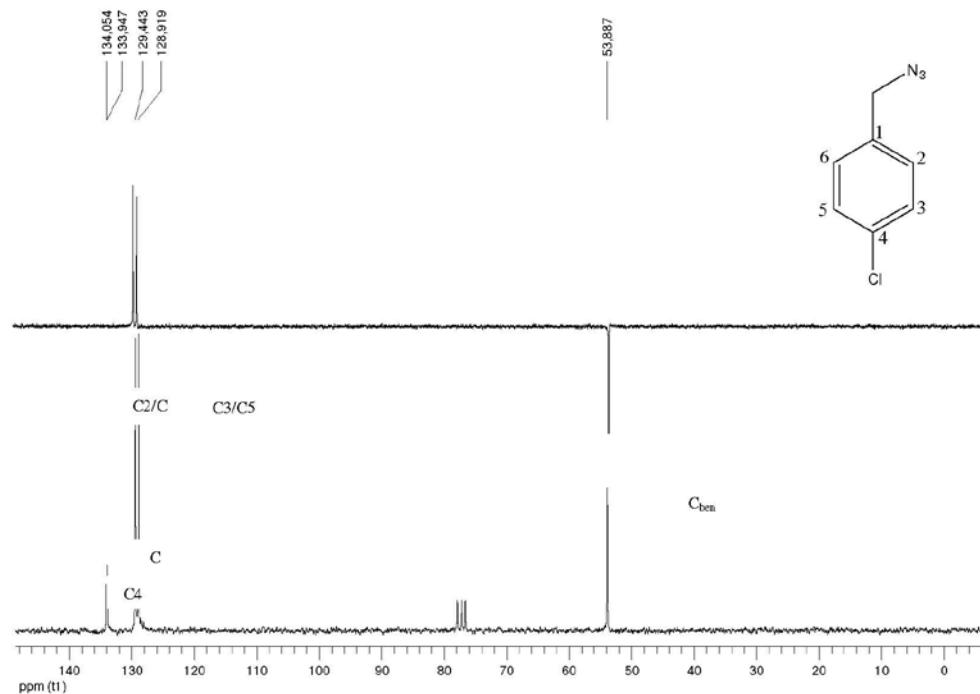


Figure S26. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)-4-chlorobenzene (**3c**).

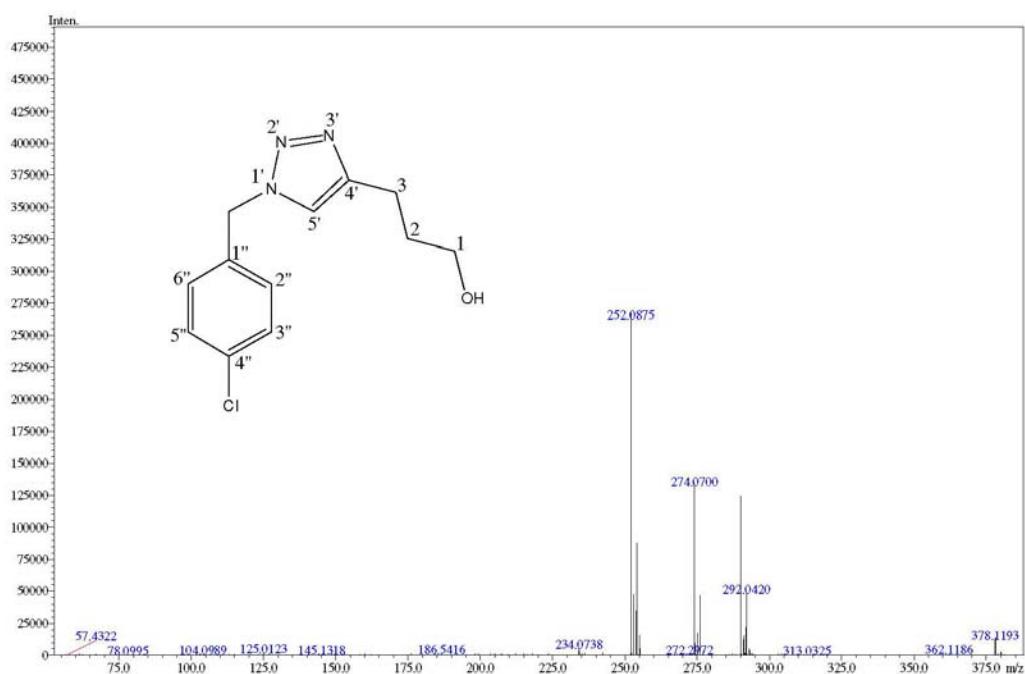


Figure S27. HRMS spectrum of 3-[1'-(4''-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4c**).

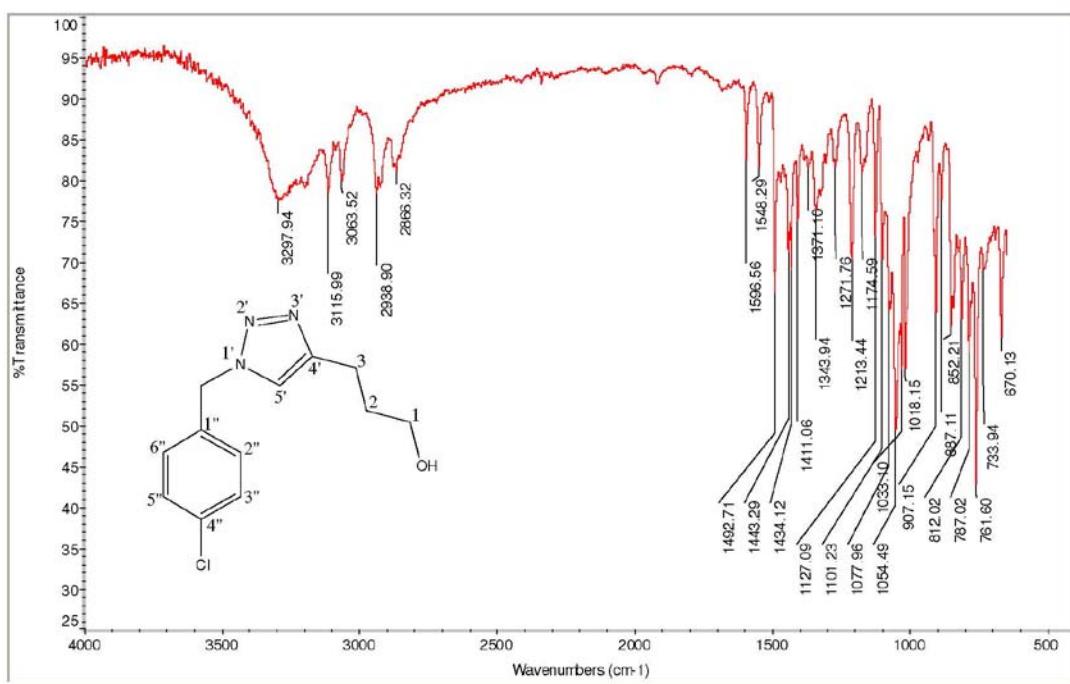


Figure S28. IR (ATR) spectrum of 3-[1'-(4''-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4c**).

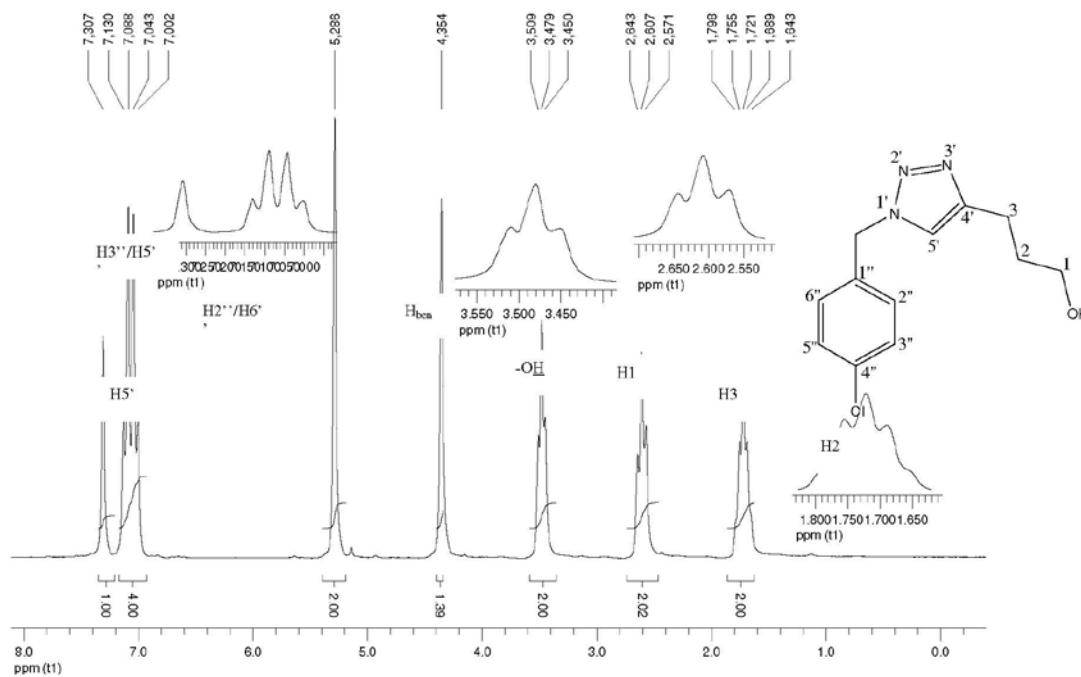


Figure S29. ¹H NMR spectrum (200 MHz, CDCl₃) of 3-[1'-(4''-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4c**).

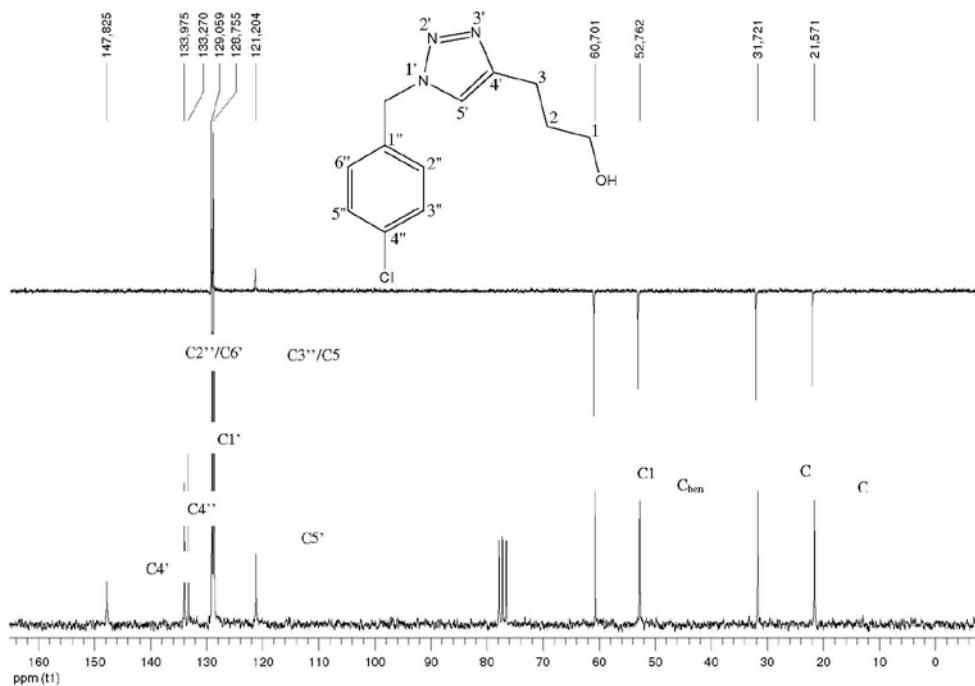


Figure S30. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 3-[1'-(4''-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4c**).

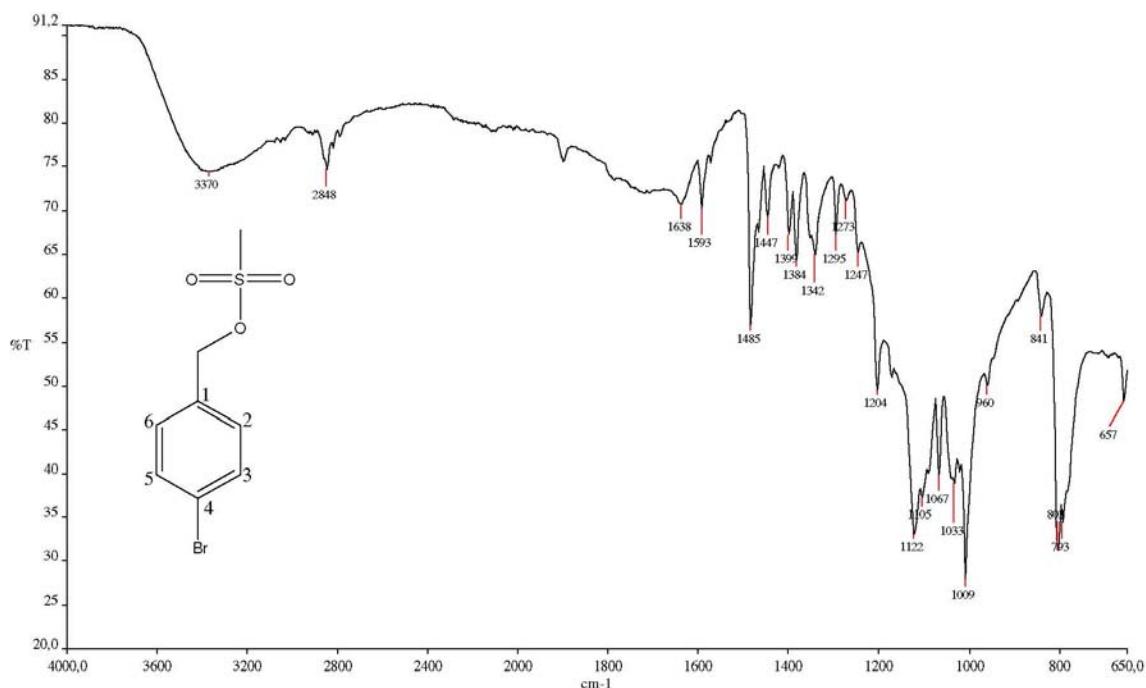


Figure S31. IR (ATR) spectrum of 4-bromobenzyl methanesulfonate (**2d**).

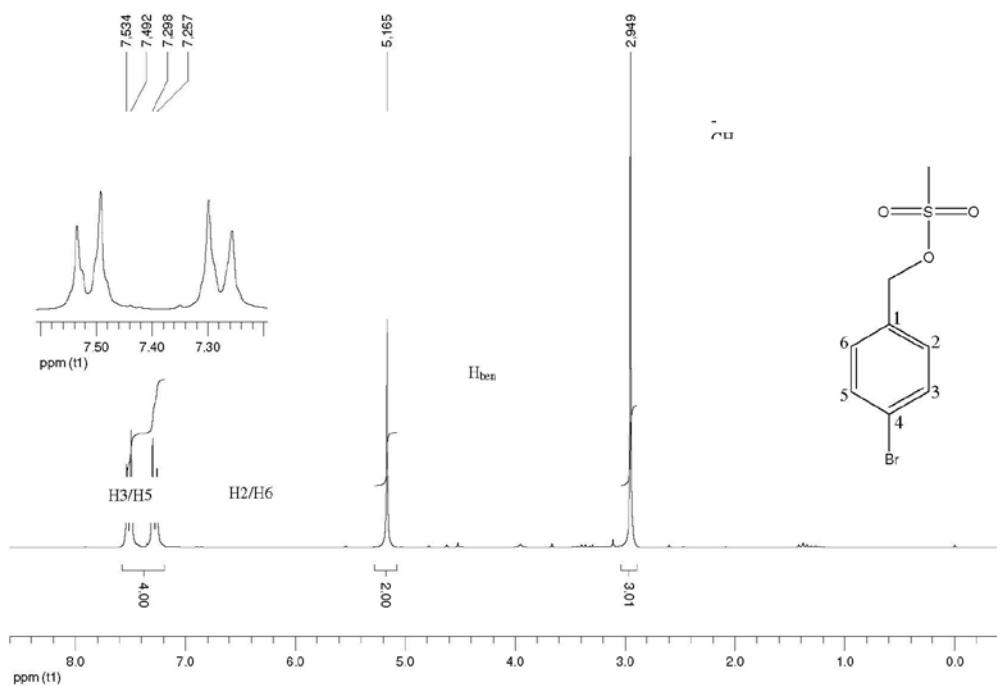


Figure S32. ¹H NMR spectrum (200 MHz, CDCl₃) of 4-bromobenzyl methanesulfonate (**2d**).

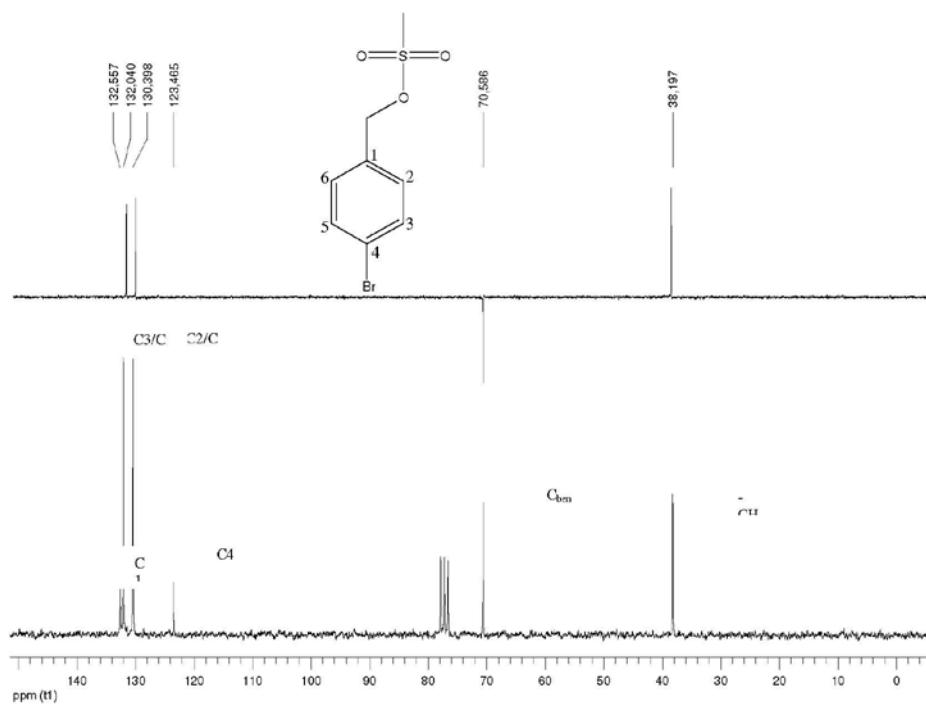


Figure S33. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 4-bromobenzyl methanesulfonate (**2d**).

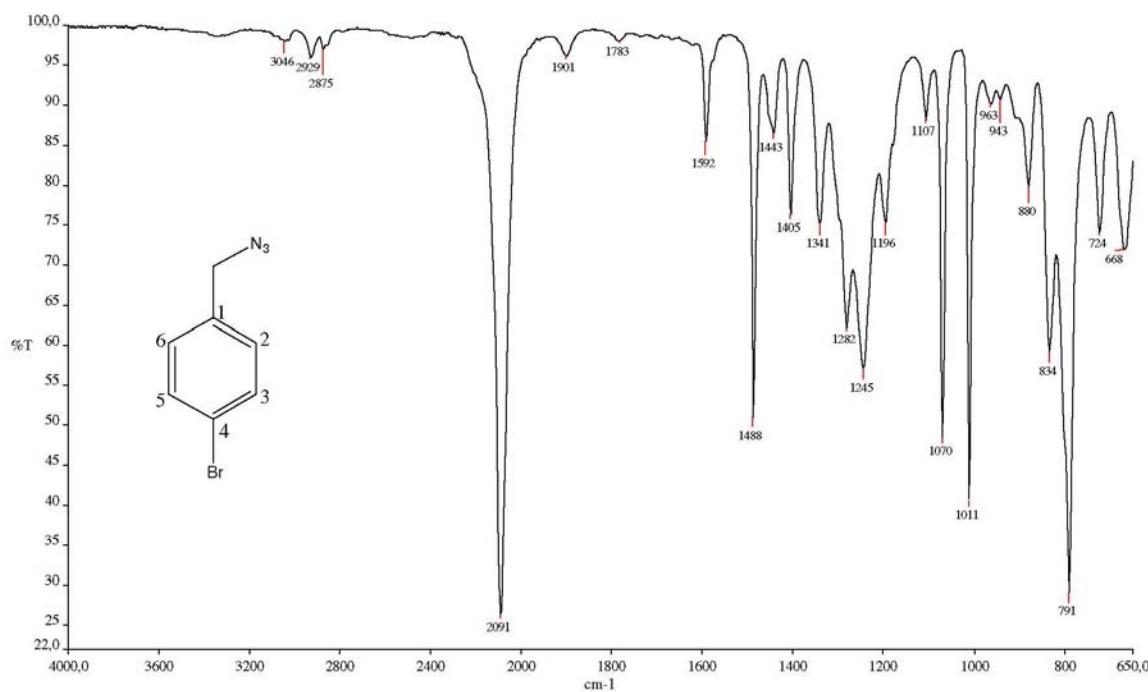


Figure S34. IR (ATR) spectrum of 1-(azidomethyl)-4-bromobenzene (**3d**).

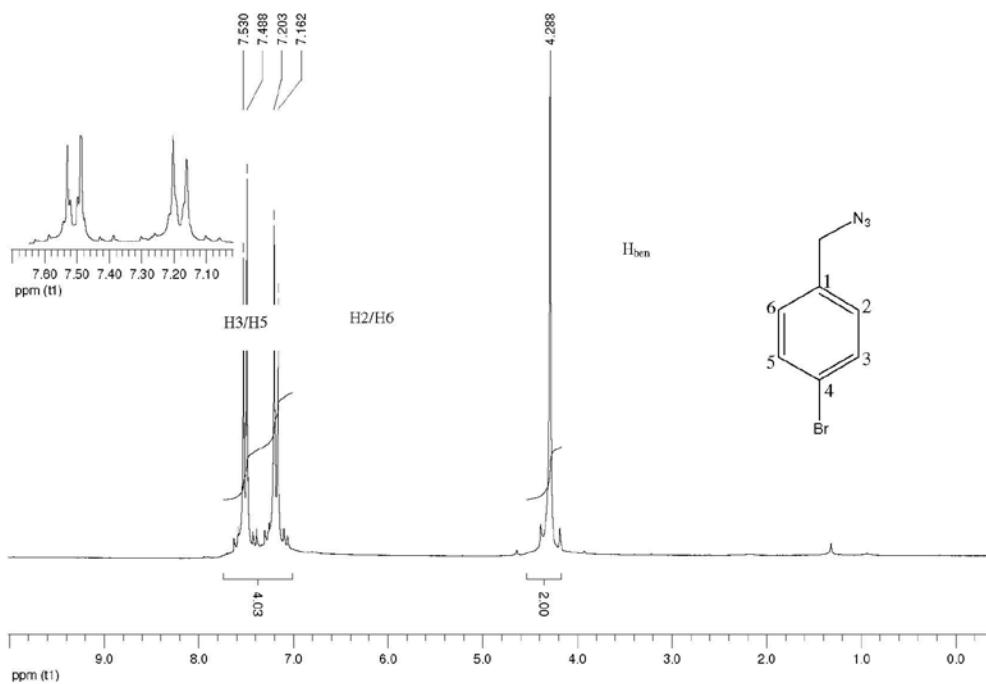


Figure S35. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)-4-bromobenzene (**3d**).

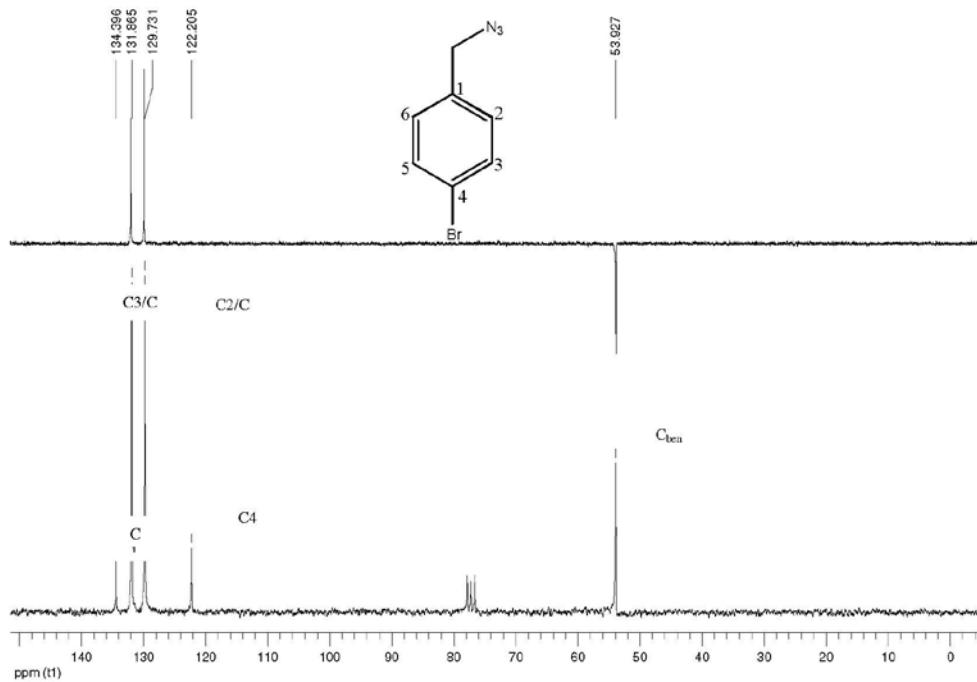


Figure S36. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)-4-bromobenzene (**3d**).

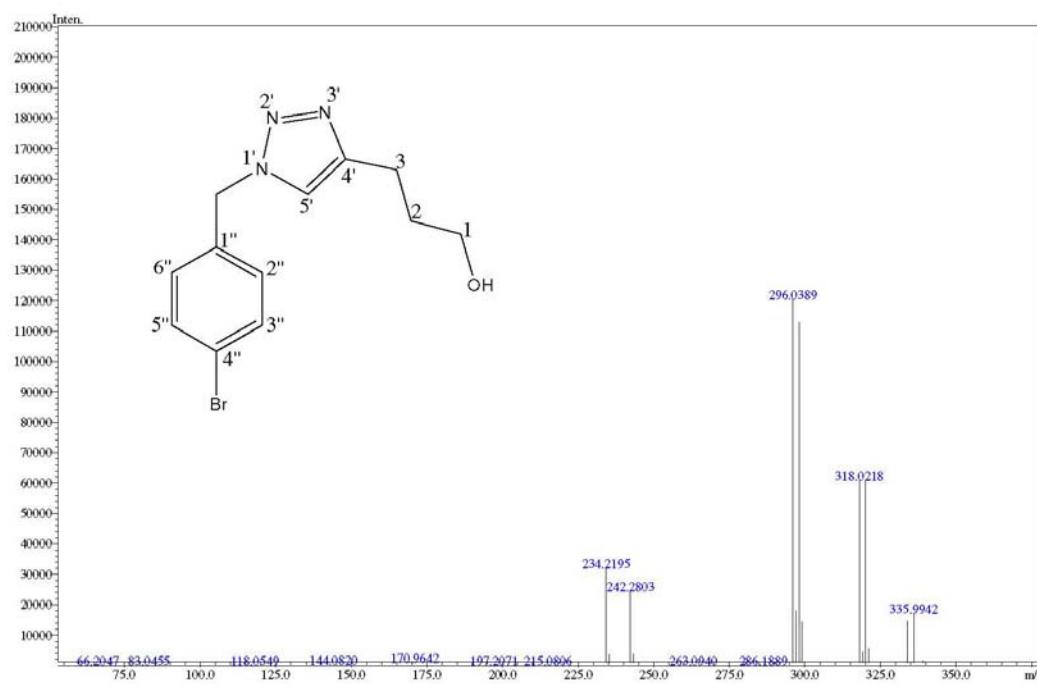


Figure S37. HRMS spectrum of 3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4d**).

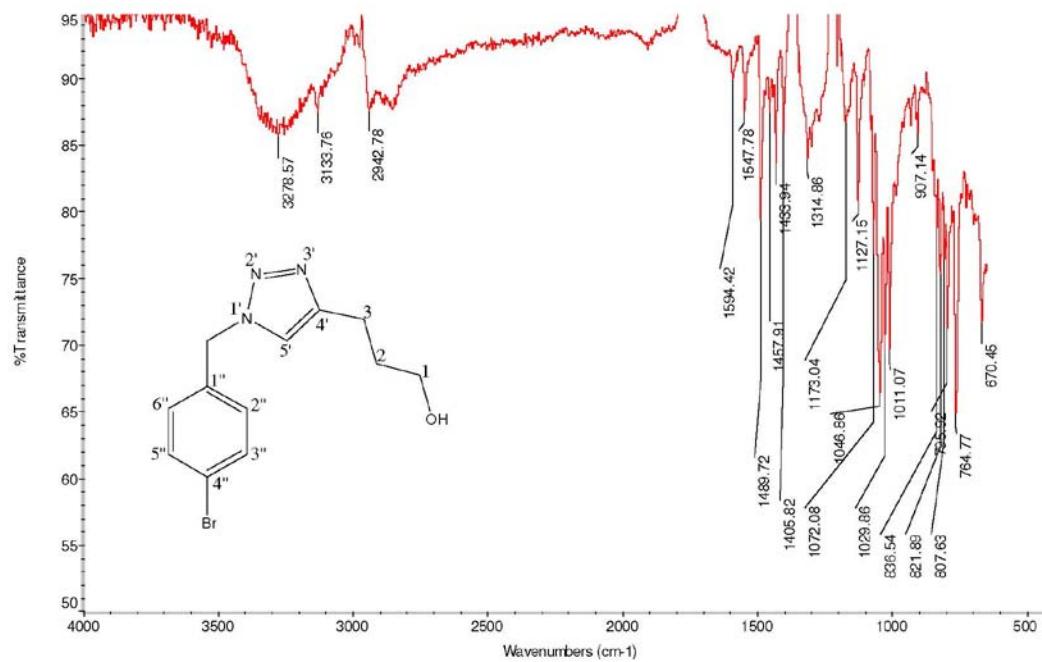


Figure S38. IR (ATR) spectrum of 3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4d**).

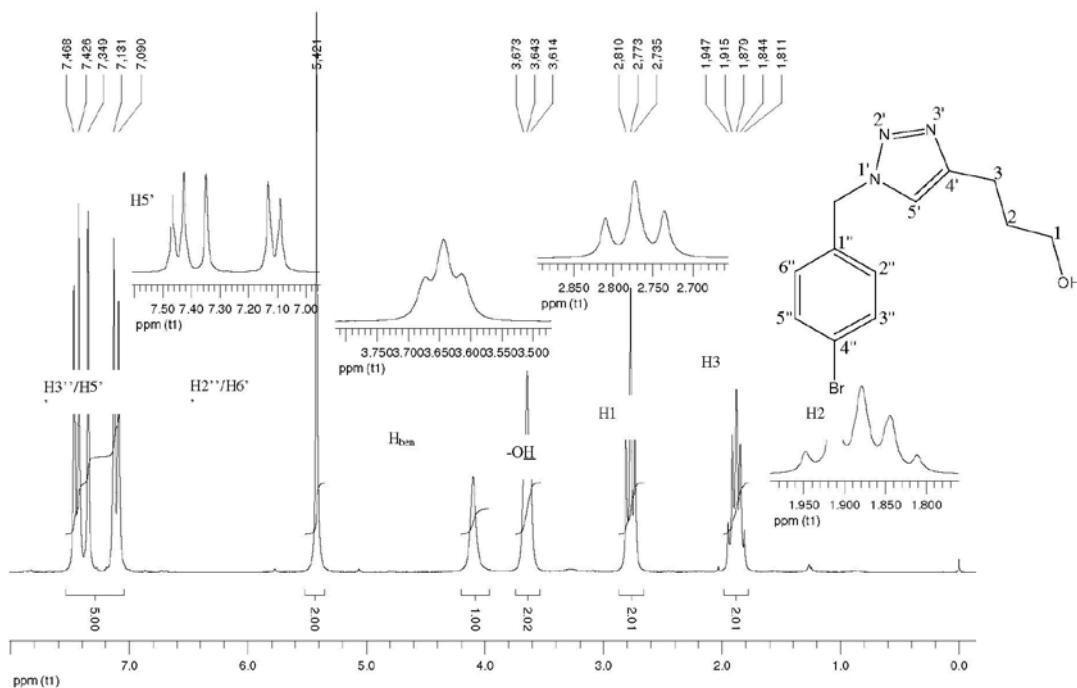


Figure S39. ^1H NMR spectrum (200 MHz, CDCl_3) of 3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4d**).

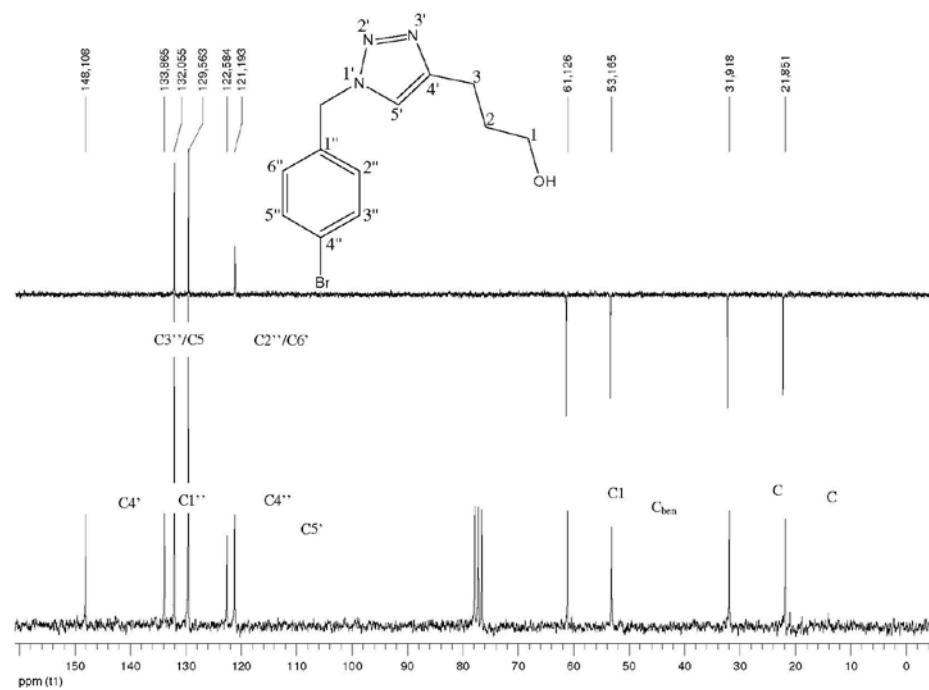


Figure S40. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4d**).

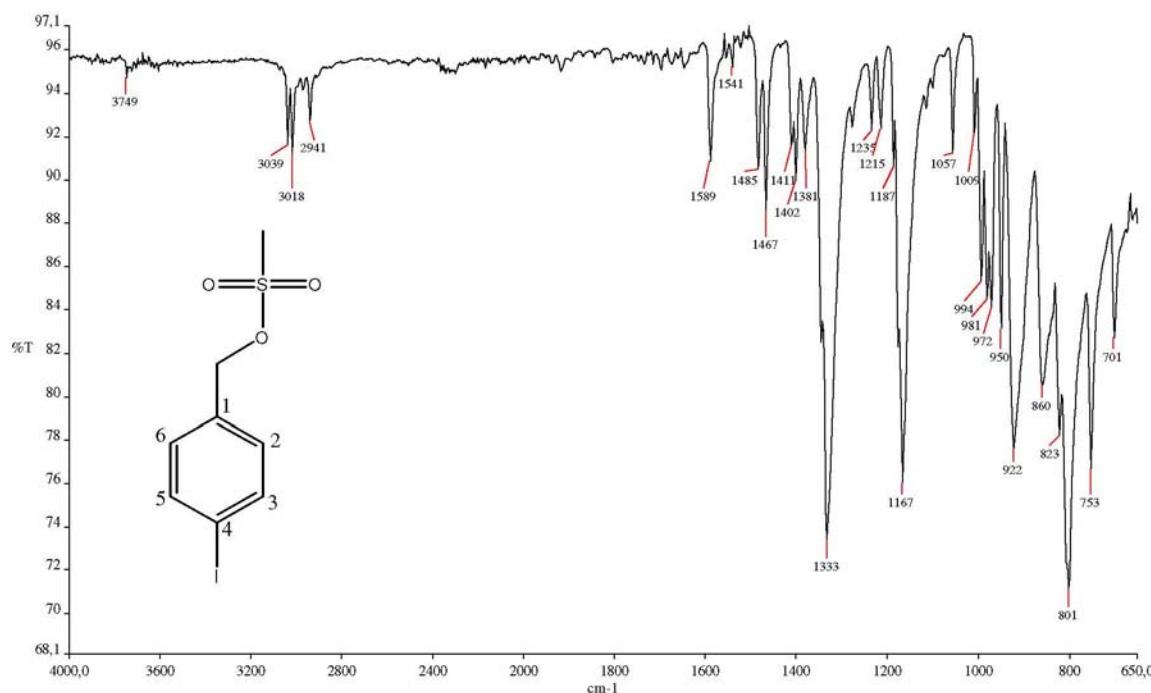


Figure S41. IR (ATR) spectrum of 4-iodobenzyl methanesulfonate (**2e**).

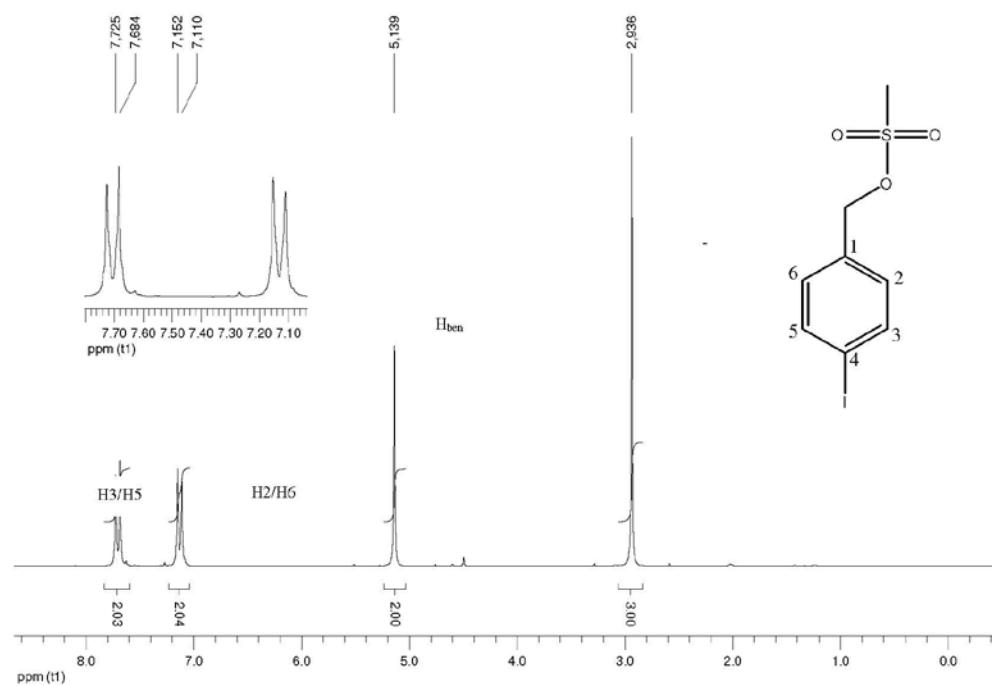


Figure S42. ¹H NMR spectrum (200 MHz, CDCl₃) of 4-iodobenzyl methanesulfonate (**2e**).

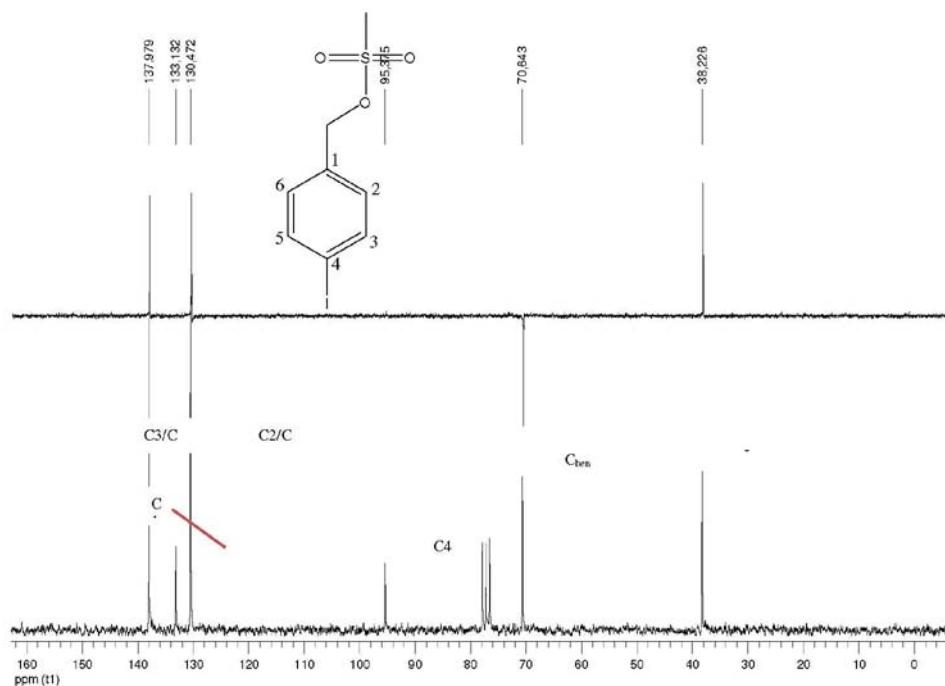


Figure S43. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 4-iodobenzyl methanesulfonate (**2e**).

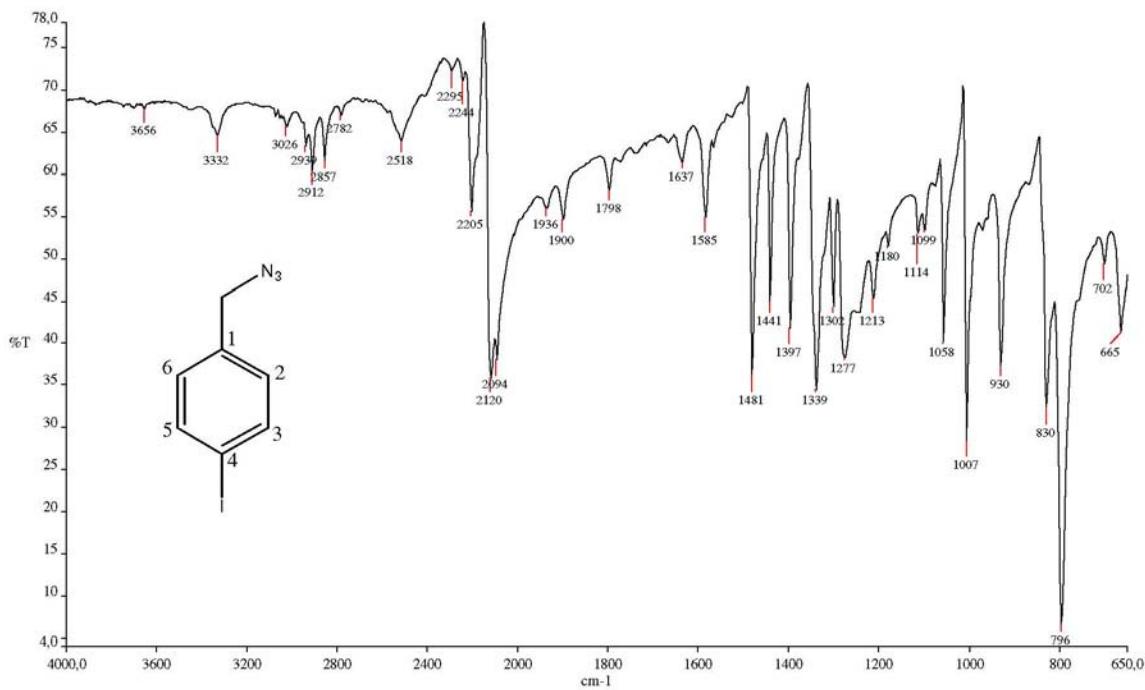


Figure S44. IR (ATR) spectrum of 1-(azidomethyl)-4-iodobenzene (**3e**).

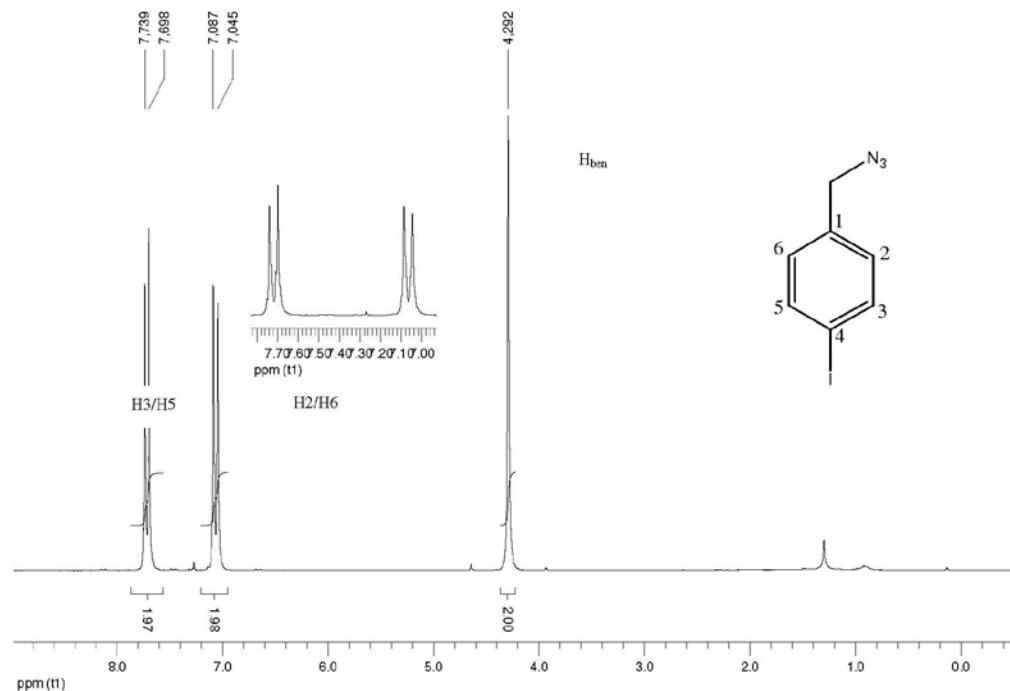


Figure S45. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)-4-iodobenzene (**3e**).

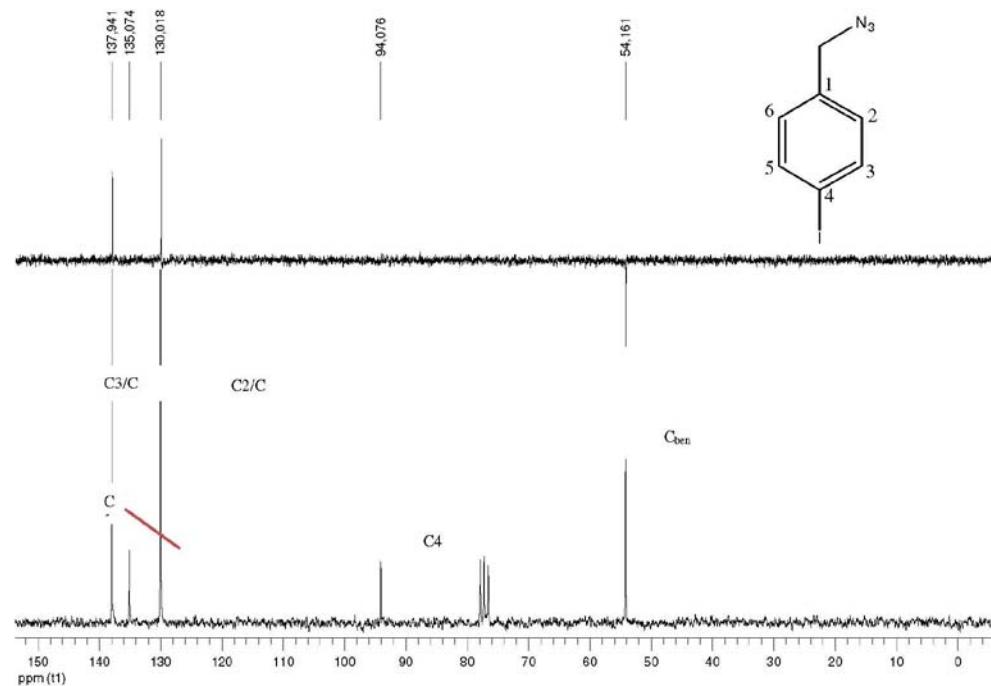


Figure S46. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)-4-iodobenzene (**3e**).

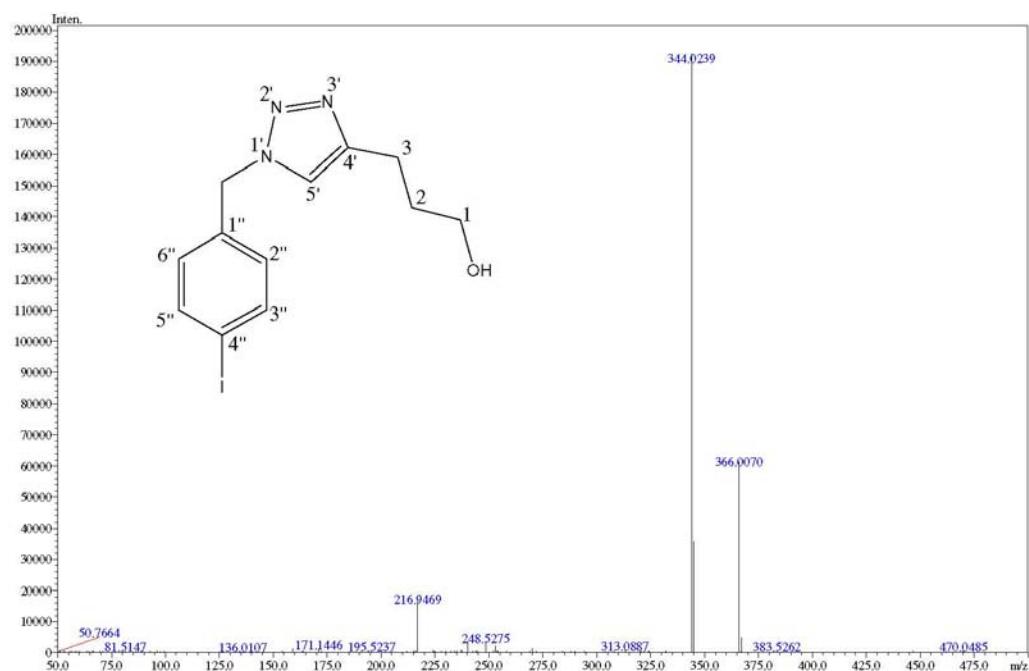


Figure S47. HRMS spectrum of 3-[1'-(4''-iodobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4e**).

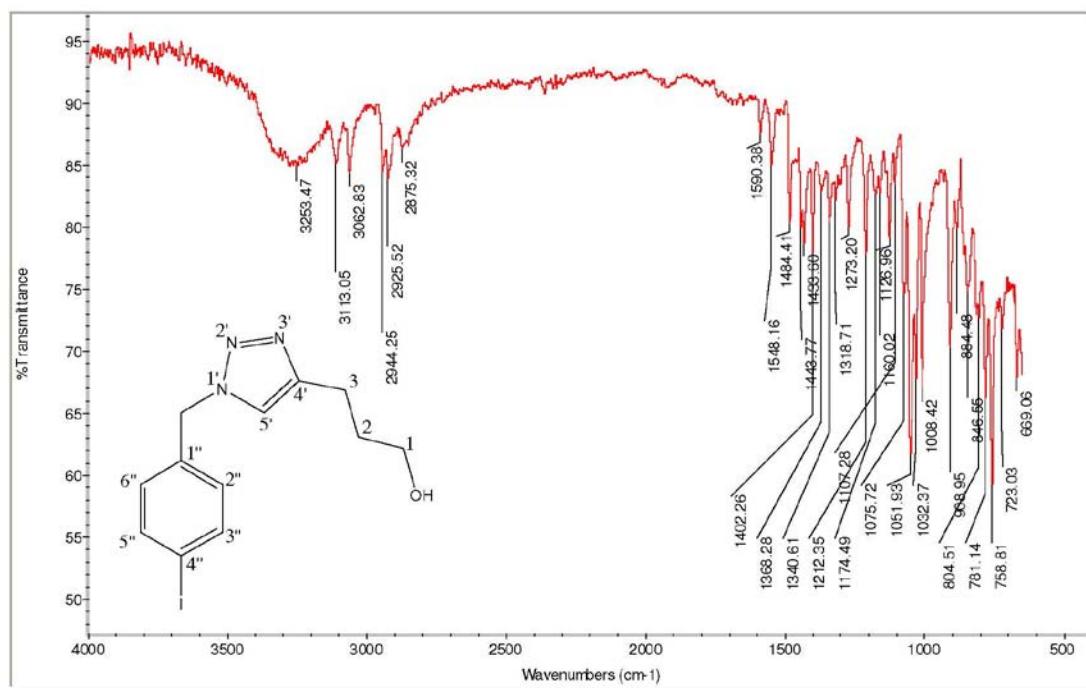


Figure S48. IR (ATR) spectrum of 3-[1'-(4''-iodobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4e**).

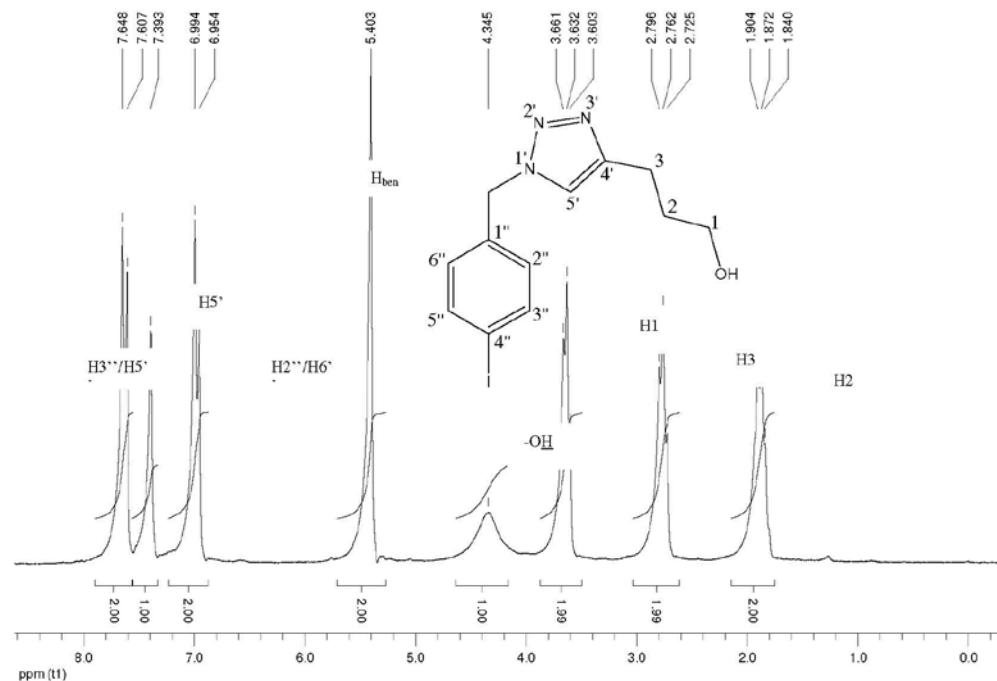


Figure S49. ^1H NMR spectrum (200 MHz, CDCl_3) of 3-[1'-(4''-iodobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4e**).

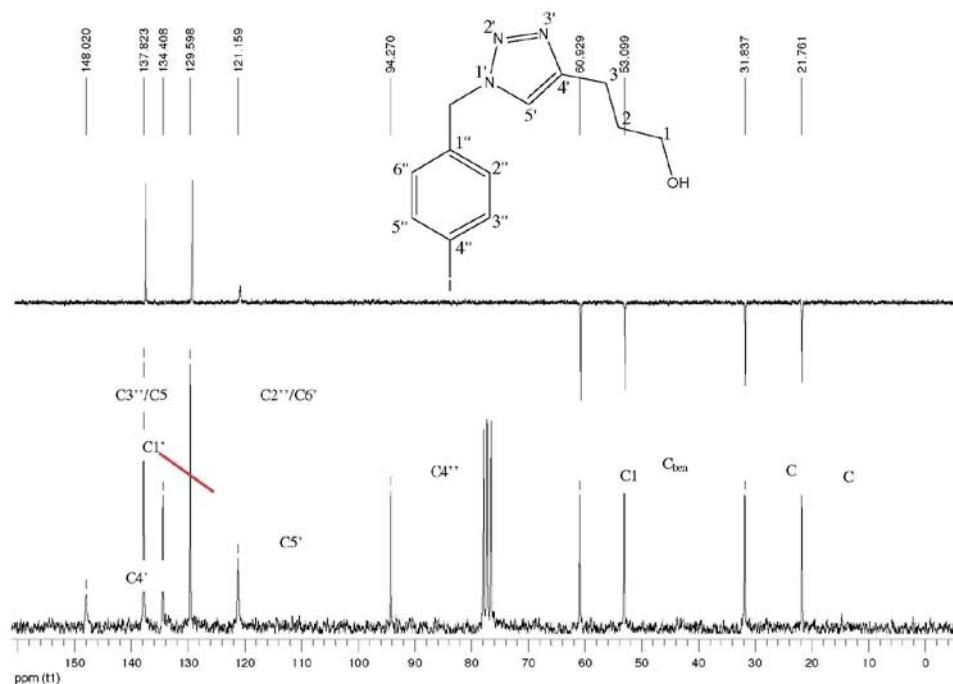


Figure S50. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 3-[1'-(4''-iodobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4e**).

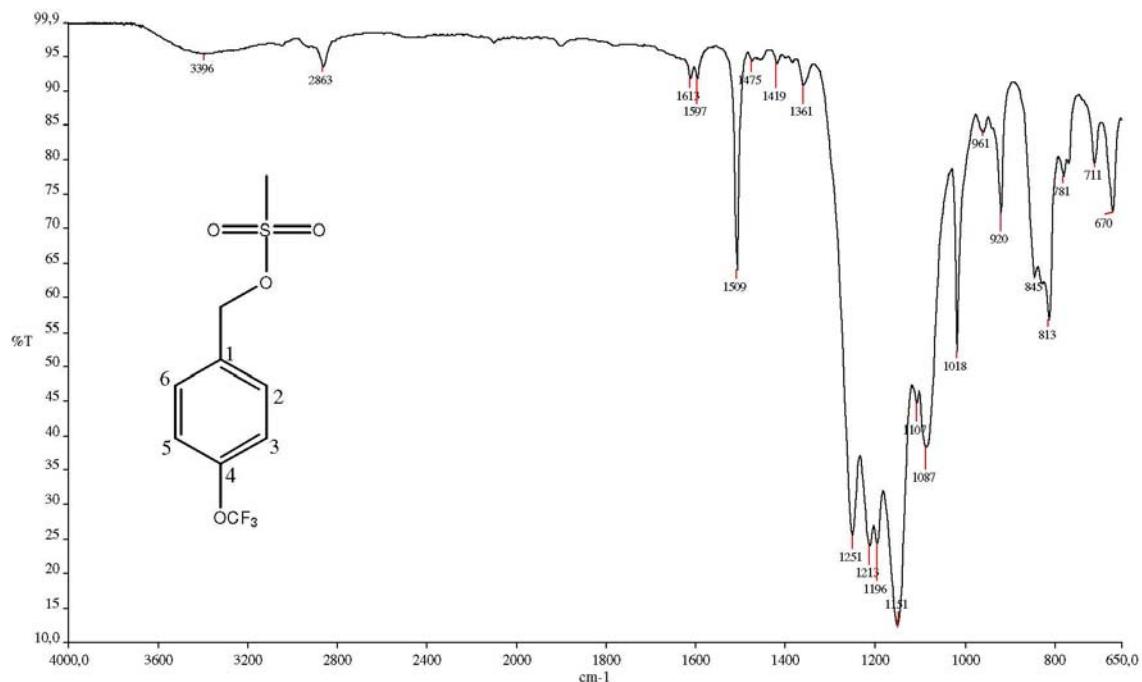


Figure S51. IR (ATR) spectrum of 4-(trifluoromethoxy)benzyl methanesulfonate (**2f**).

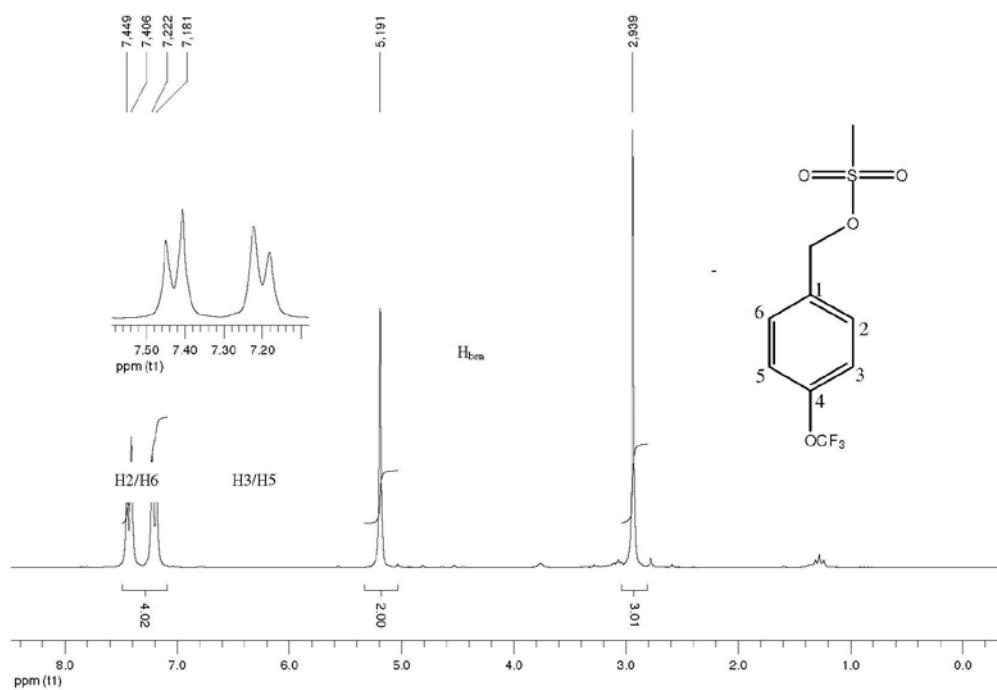


Figure S52. ¹H NMR spectrum (200 MHz, CDCl₃) of 4-(trifluoromethoxy)benzyl methanesulfonate (**2f**).

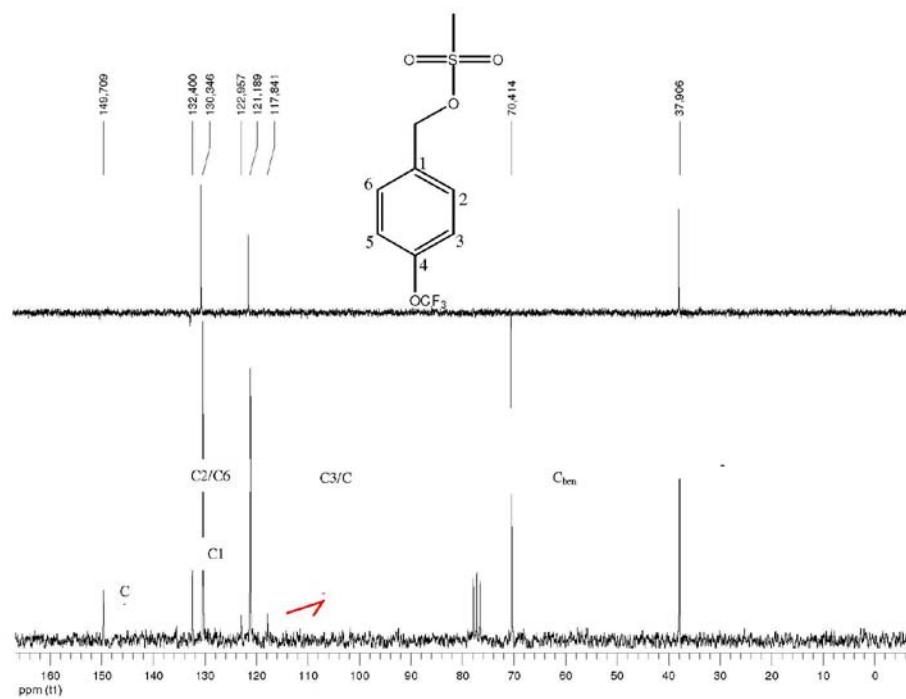


Figure S53. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 4-(trifluoromethoxy)benzyl methanesulfonate (**2f**).

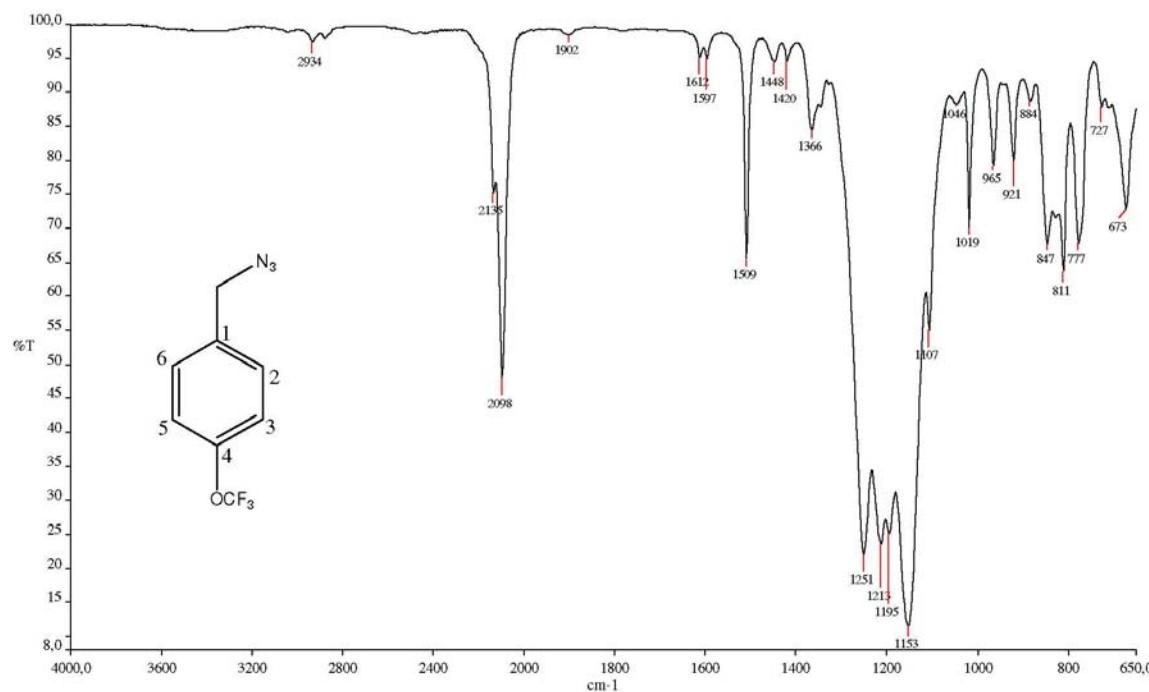


Figure S54. IR (ATR) spectrum of 1-(azidomethyl)-4-(trifluoromethoxy)benzene (**3f**).

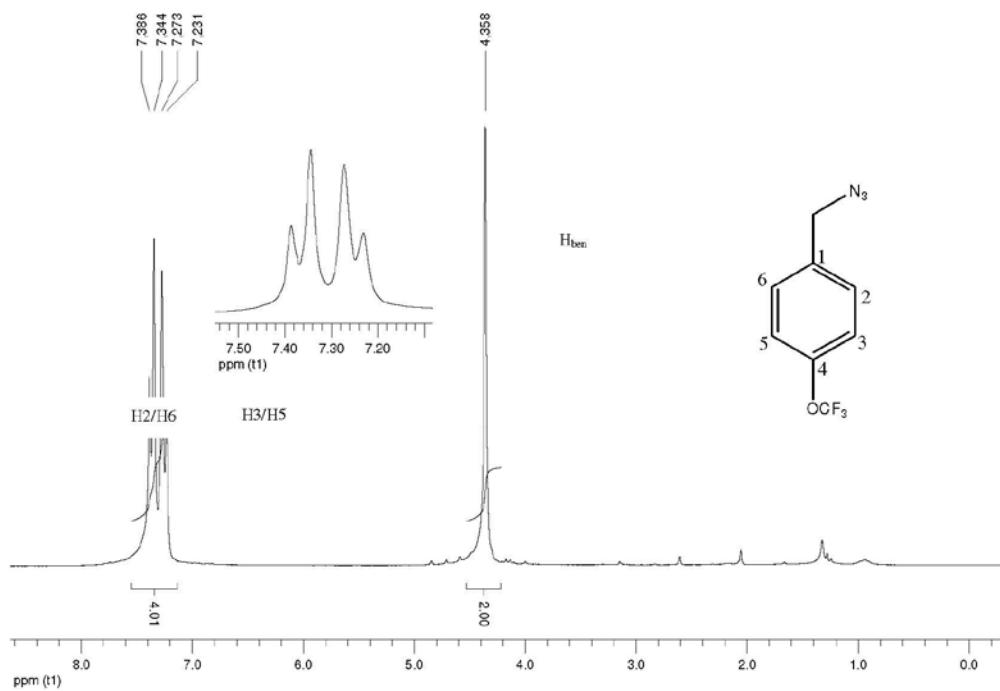


Figure S55. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)-4-(trifluoromethoxy)benzene (**3f**).

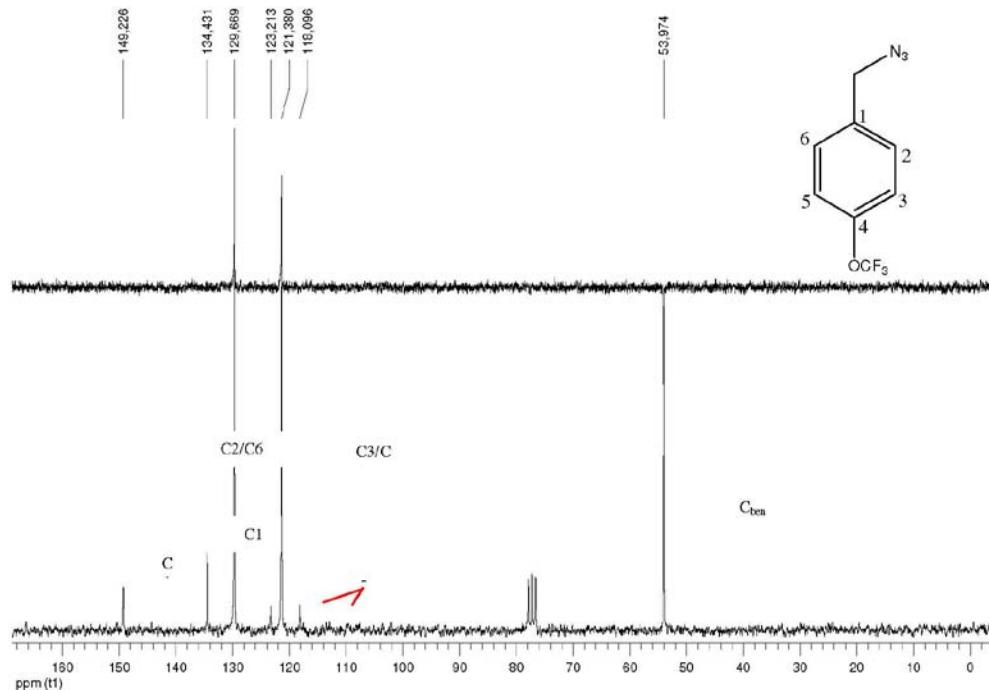


Figure S56. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)-4-(trifluoromethoxy)benzene (**3f**).

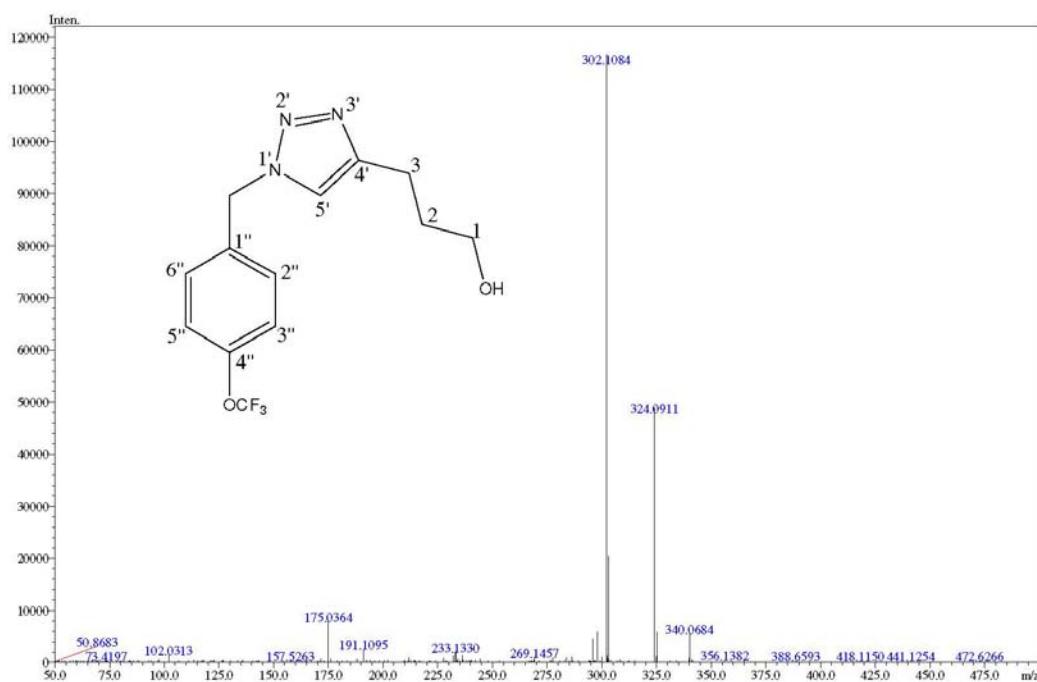


Figure S57. HRMS spectrum of 3-[1'-(4''-trifluoromethoxybenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4f**).

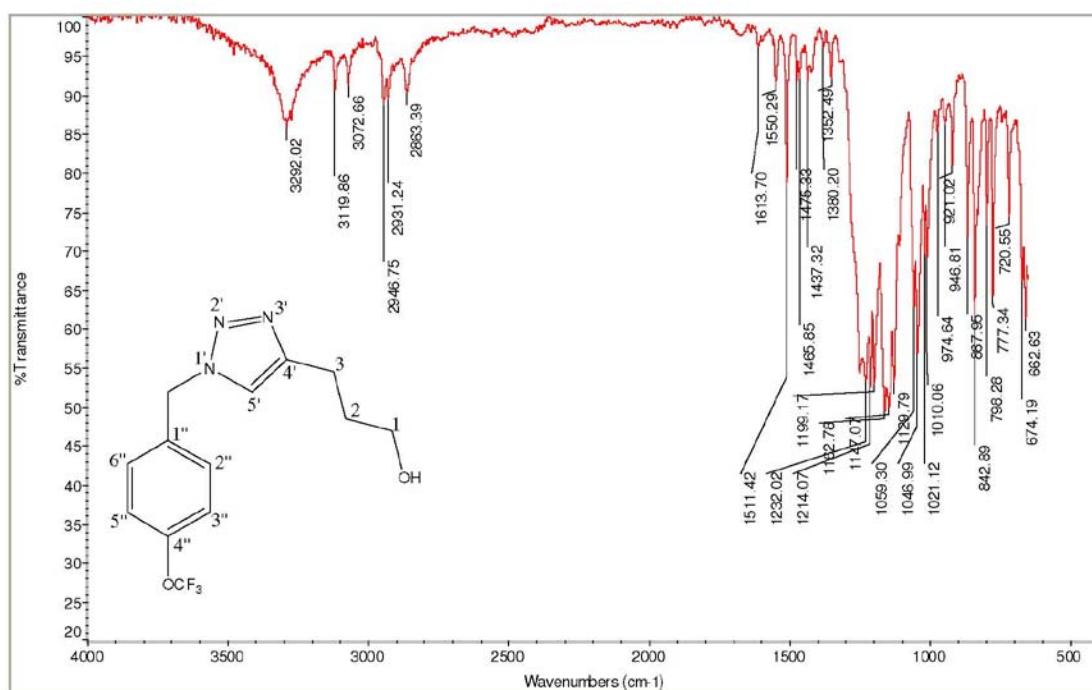


Figure S58. IR (ATR) spectrum of 3-[1'-(4''-trifluoromethoxybenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4f**).

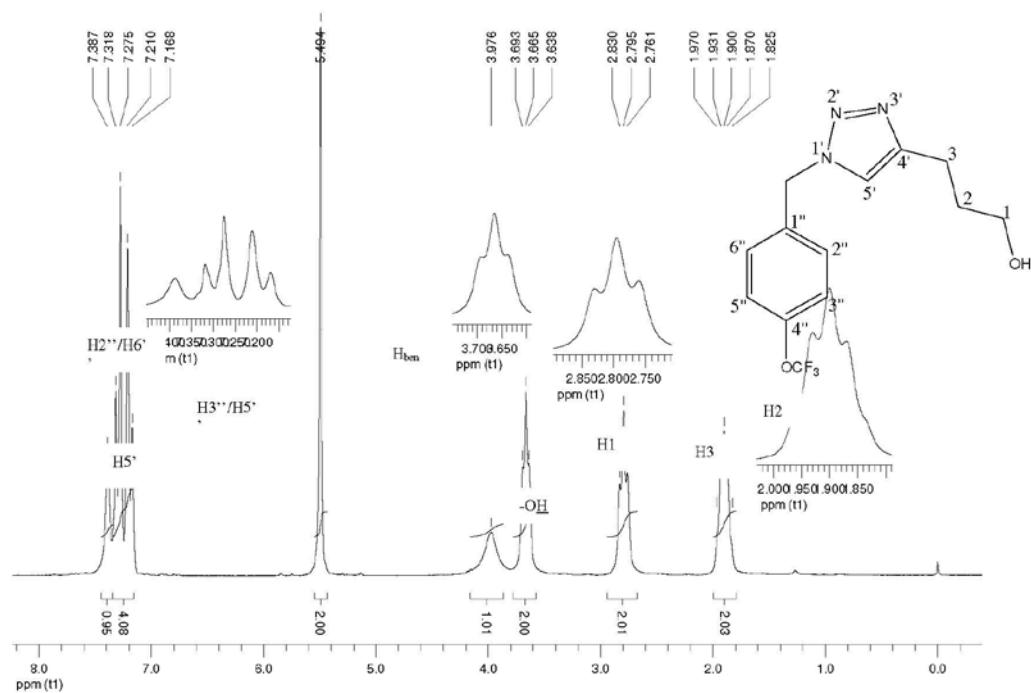


Figure S59. ^1H NMR spectrum (200 MHz, CDCl_3) of 3-[1'-(4''-trifluoromethoxybenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4f**).

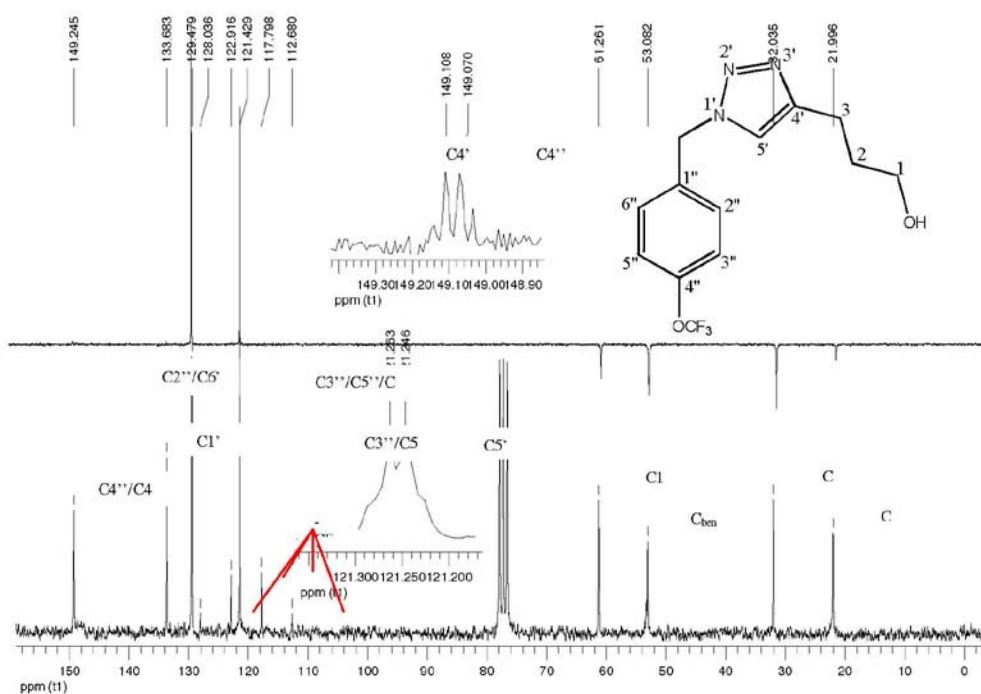


Figure S60. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 3-[1'-(4''-trifluoromethoxybenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4f**).

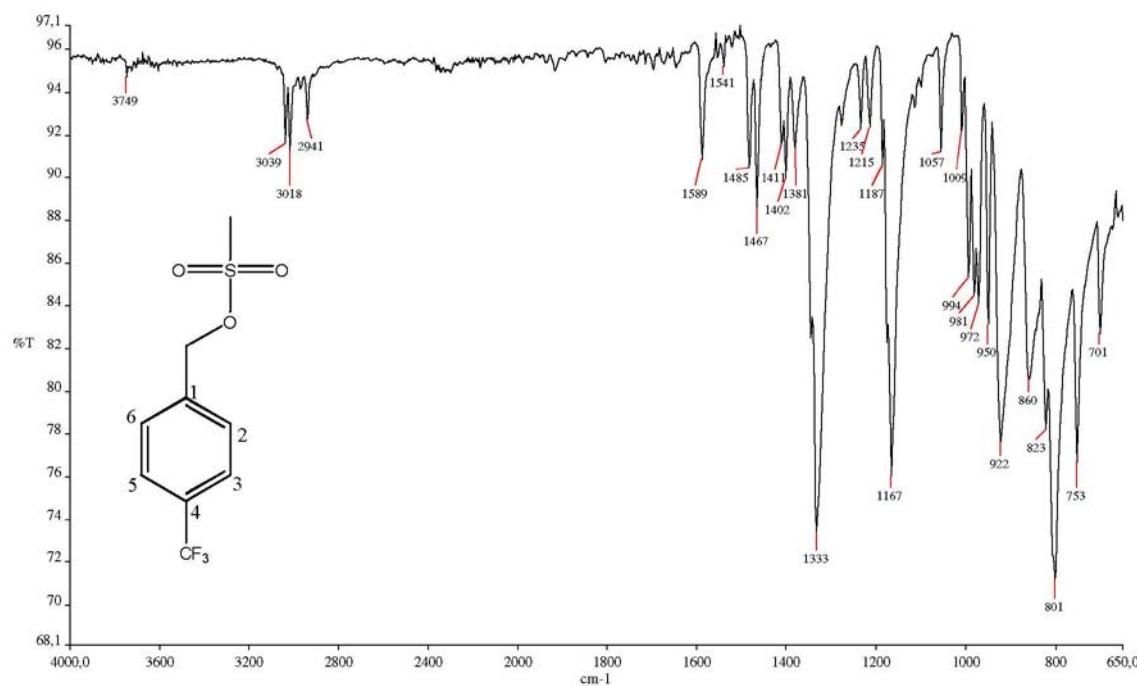


Figure S61. IR (ATR) spectrum of 4-(trifluoromethyl)benzyl methanesulfonate (**2g**).

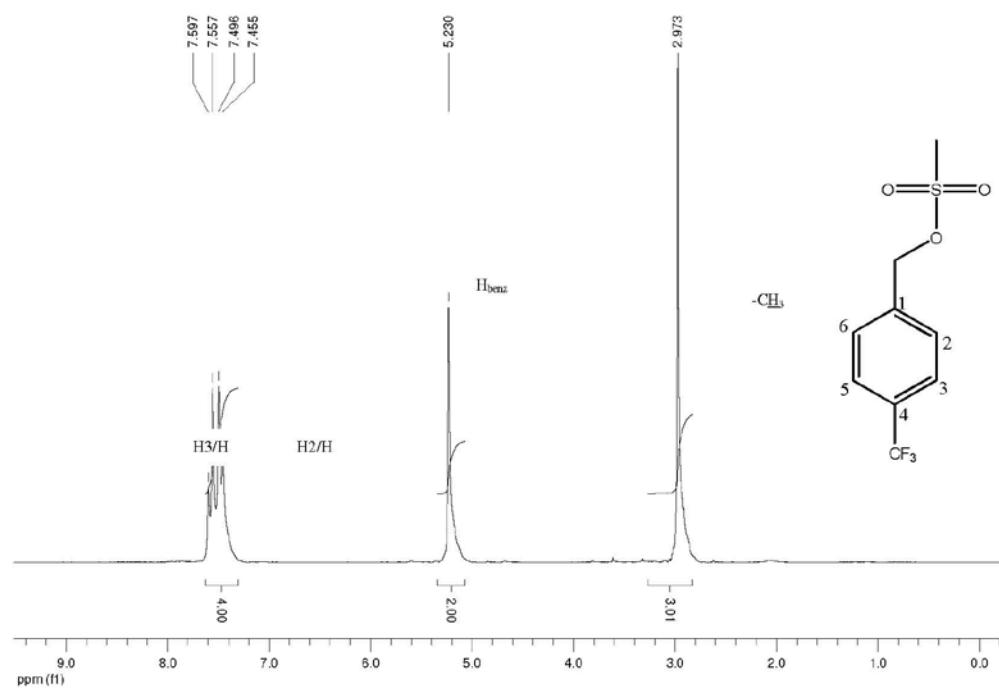


Figure S62. ¹H NMR spectrum (200 MHz, CDCl₃) of 4-(trifluoromethyl)benzyl methanesulfonate (**2g**).

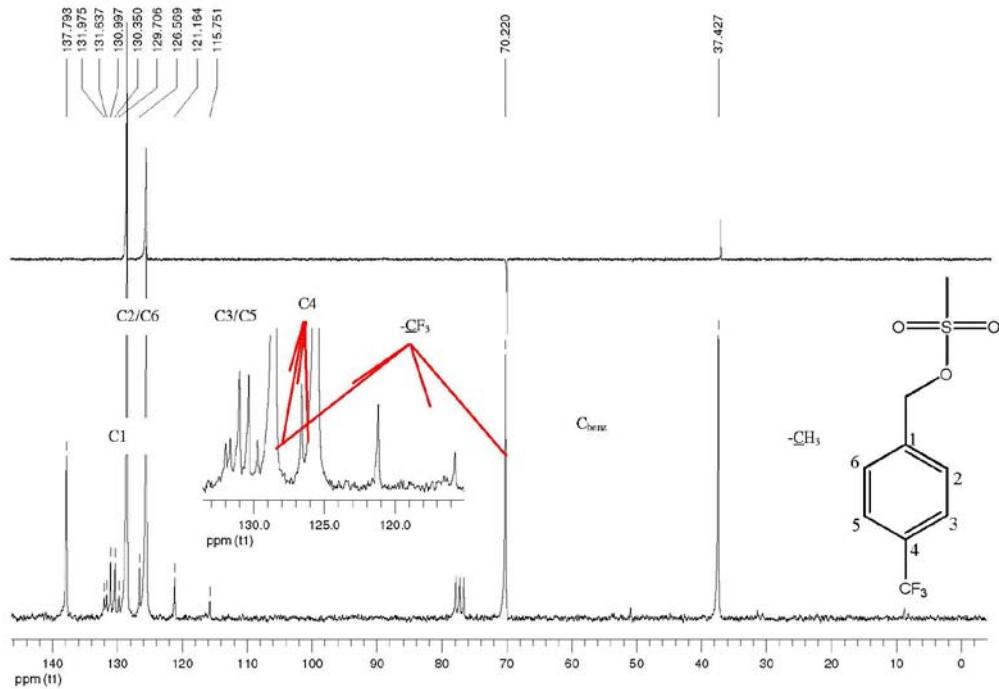


Figure S63. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 4-(trifluoromethyl)benzyl methanesulfonate (**2g**).

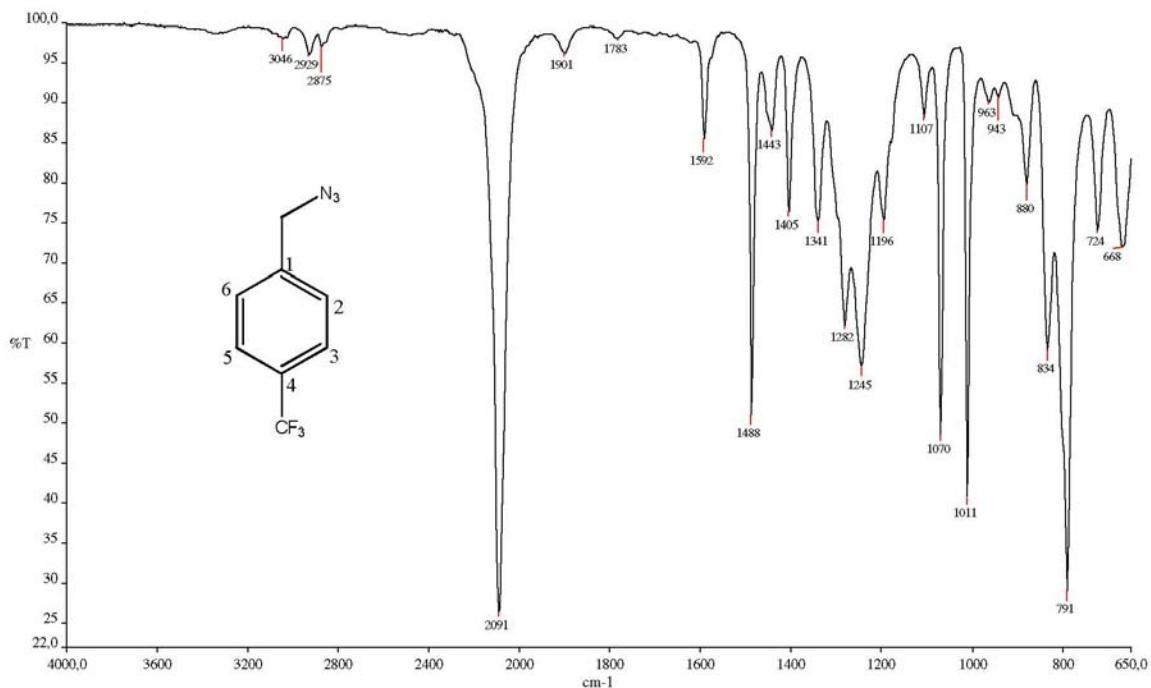


Figure S64. IR (ATR) spectrum of 1-(azidomethyl)-4-(trifluoromethyl)benzene (**3g**).

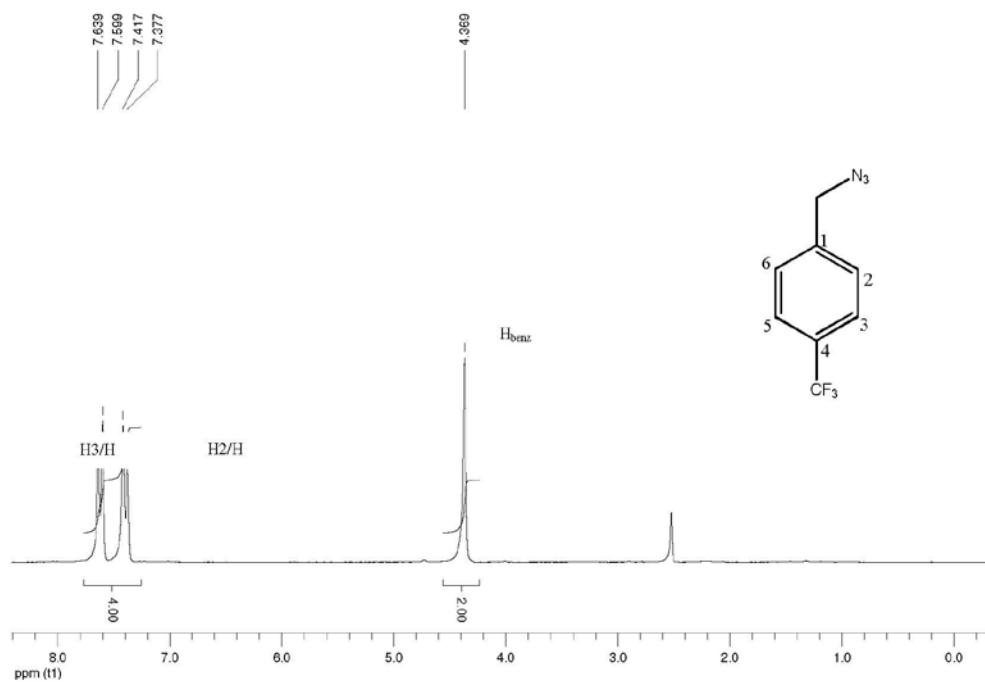


Figure S65. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)-4-(trifluoromethyl)benzene (**3g**).

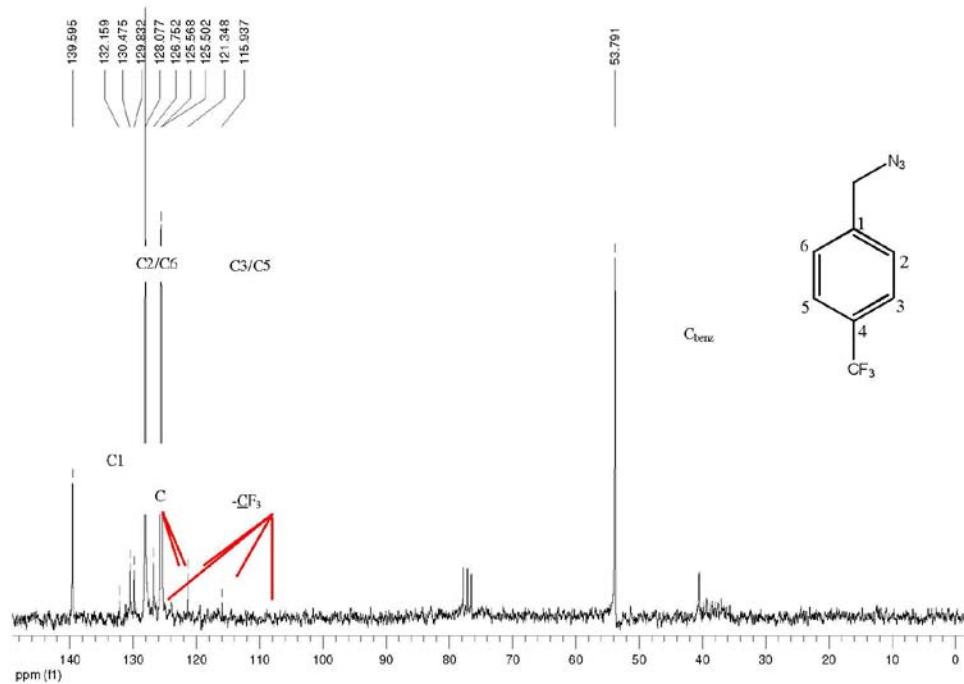


Figure S66. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)-4-(trifluoromethyl)benzene (**3g**).

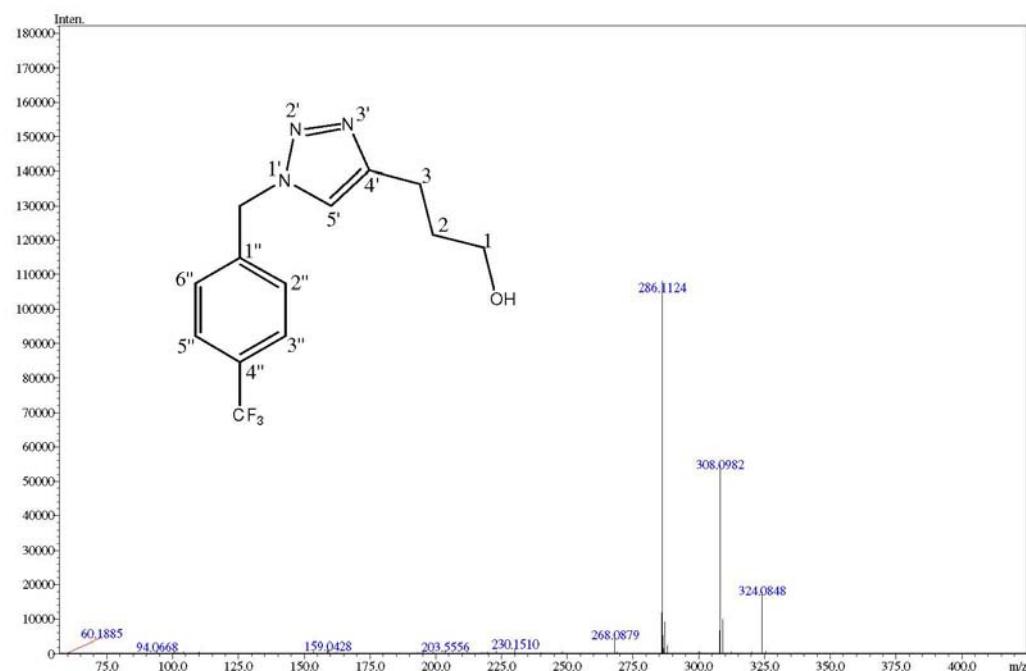


Figure S67. HRMS spectrum of 3-[1'-(4''-trifluoromethylbenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4g**).

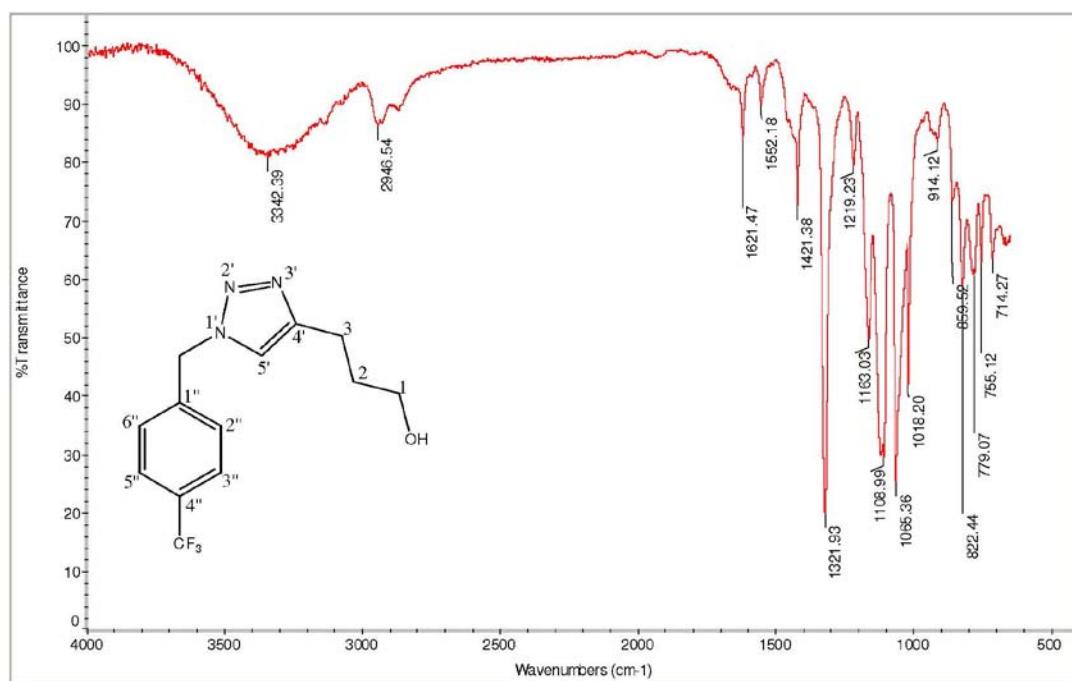


Figure S68. IR (ATR) spectrum of 3-[1'-(4''-trifluoromethylbenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4g**).

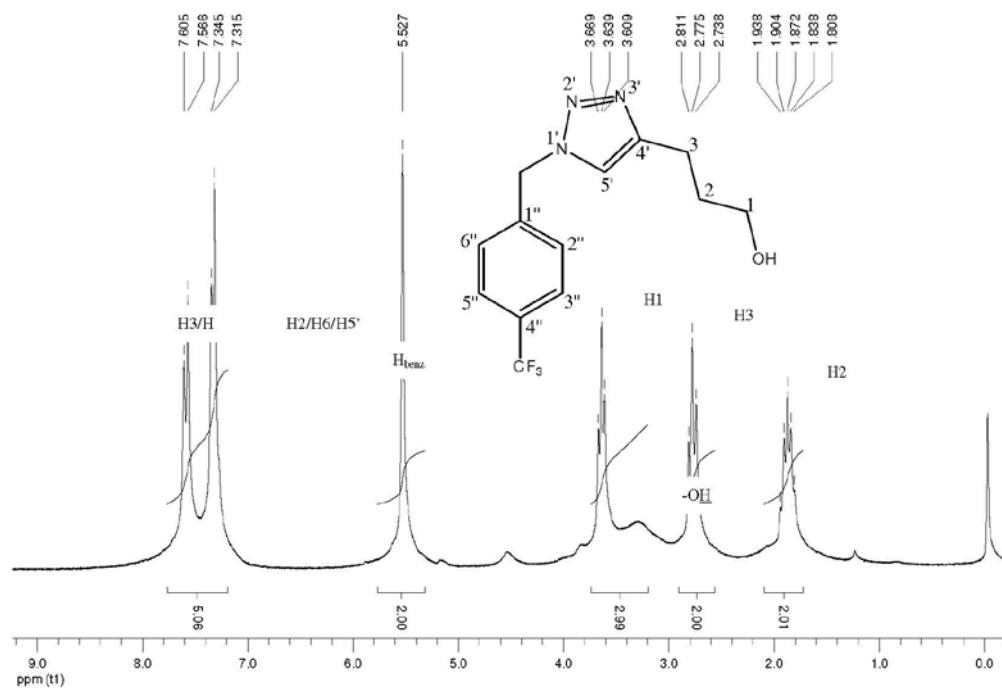


Figure S69. ¹H NMR spectrum (200 MHz, CDCl₃) of 3-[1'-(4''-trifluoromethylbenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4g**).

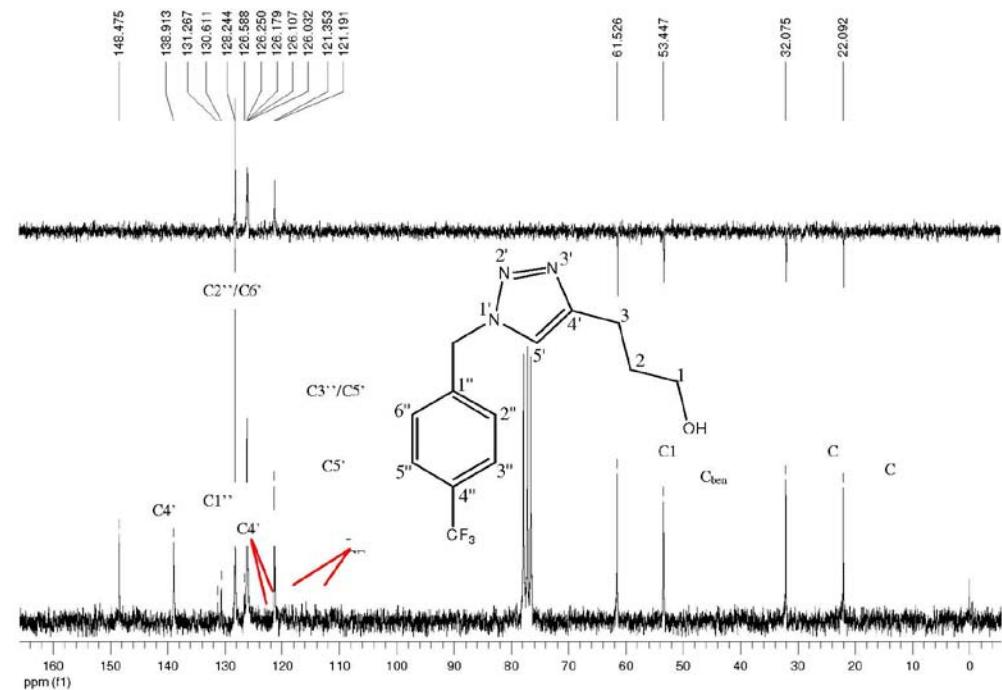


Figure S70. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 3-[1'-(4''-trifluoromethylbenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4g**).

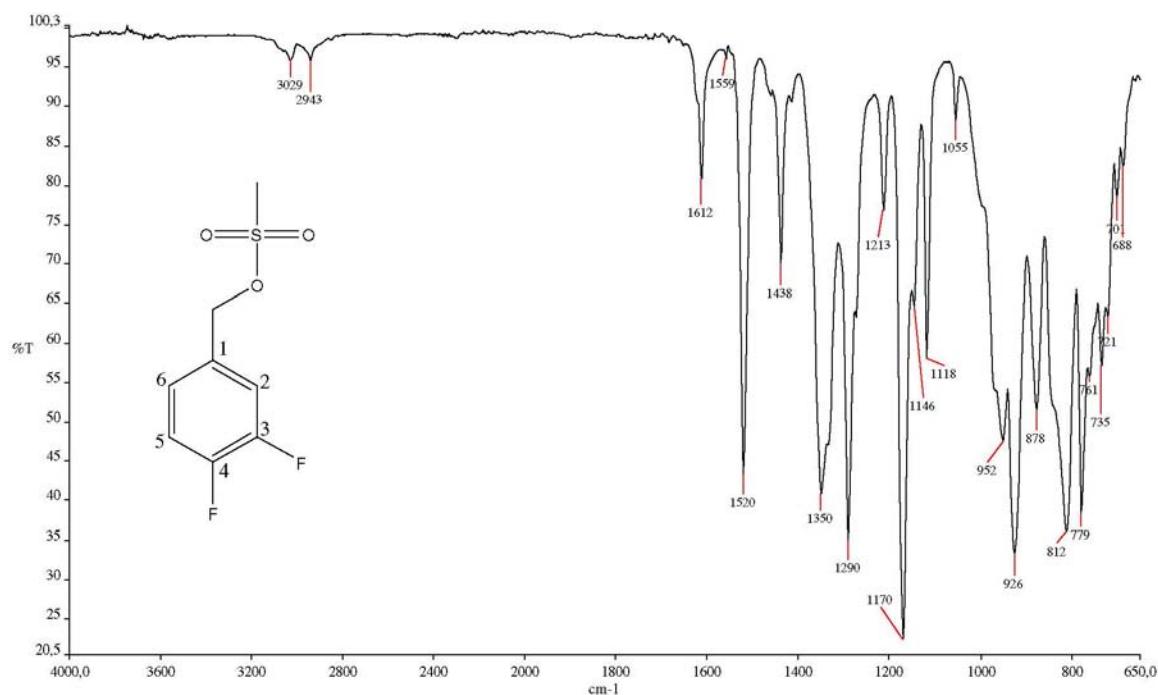


Figure S71. IR (ATR) spectrum of 3,4-(difluoro)benzyl methanesulfonate (**2h**).

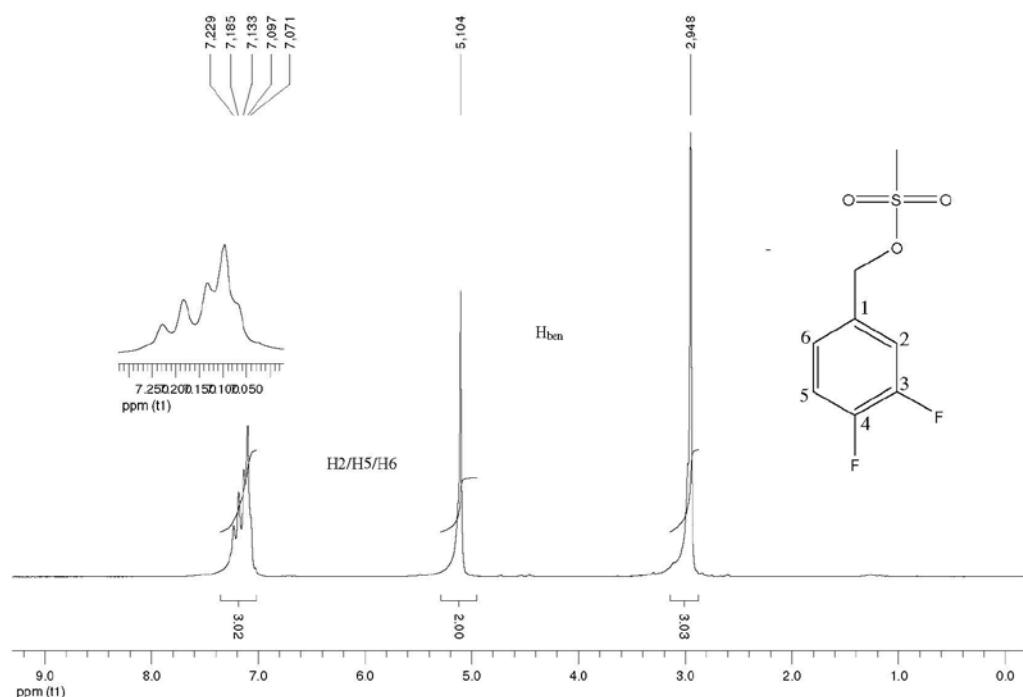


Figure S72. ¹H NMR spectrum (200 MHz, CDCl_3) of 3,4-(difluoro)benzyl methanesulfonate (**2h**).

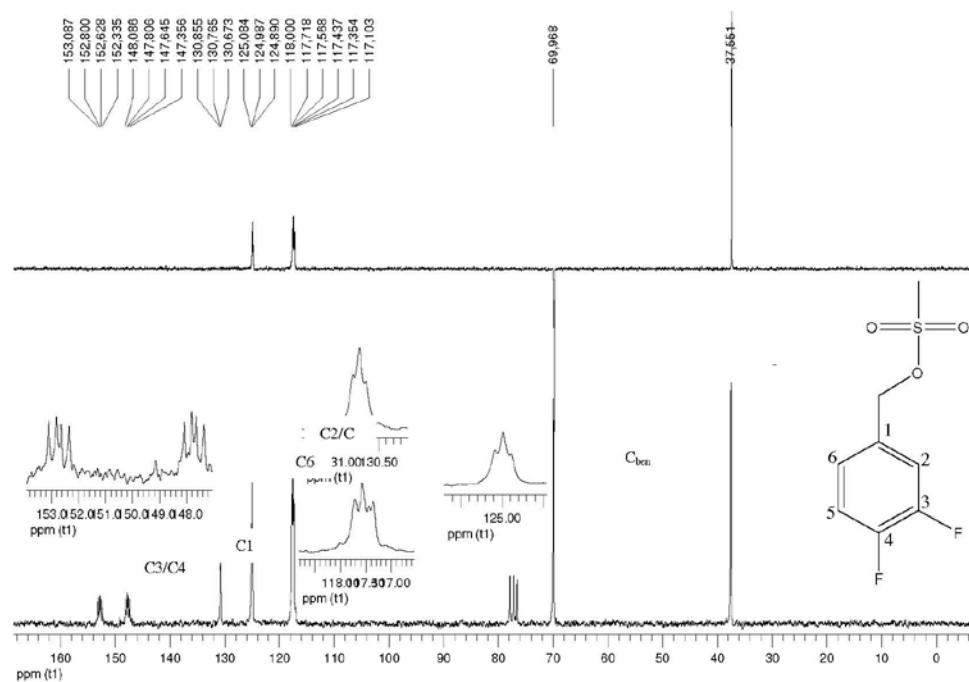


Figure S73. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 3,4-(difluoro)benzyl methanesulfonate (**2h**).

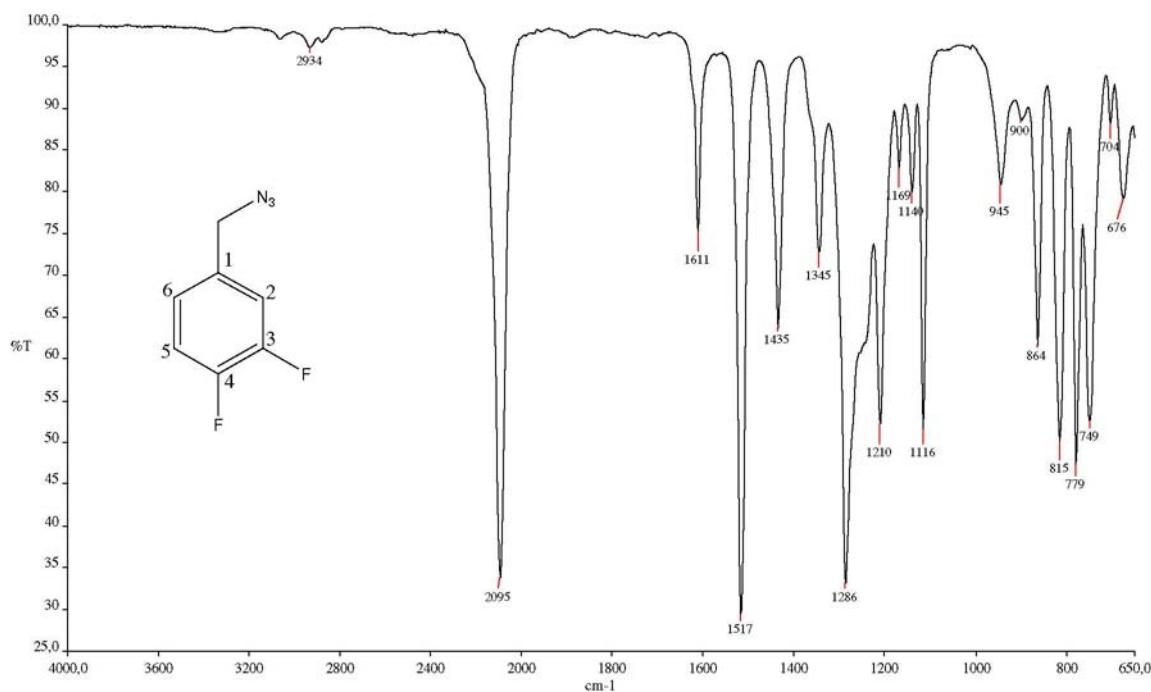


Figure S74. IR (ATR) spectrum of 1-(azidomethyl)-3,4-(difluoro)benzene (**3h**).

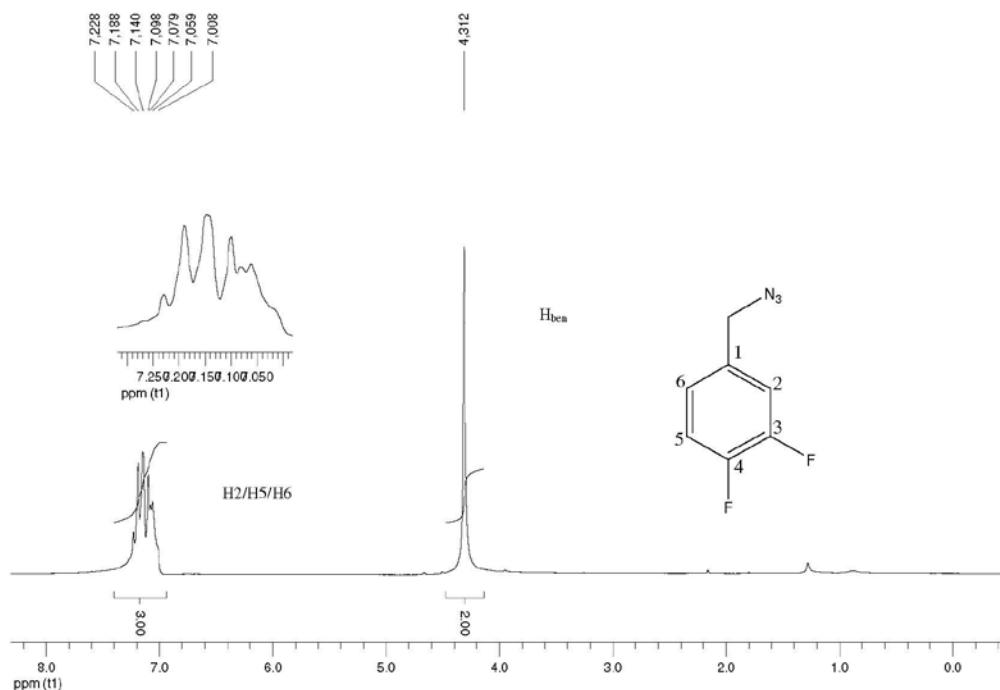


Figure S75. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)-3,4-(difluoro)benzene (**3h**).

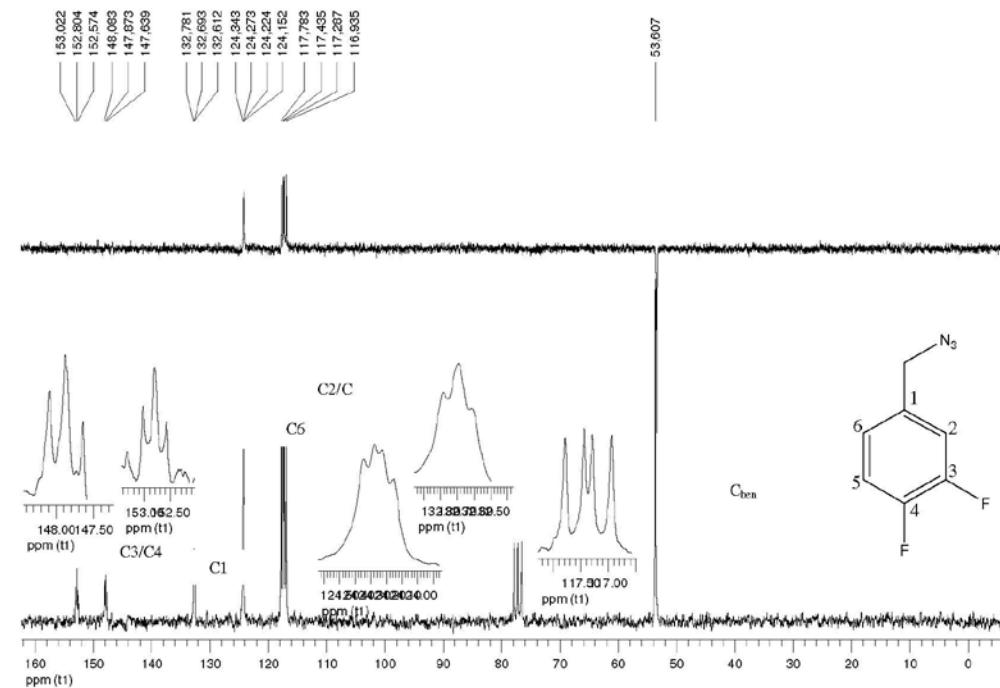


Figure S76. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)-3,4-(difluoro)benzene (**3h**).

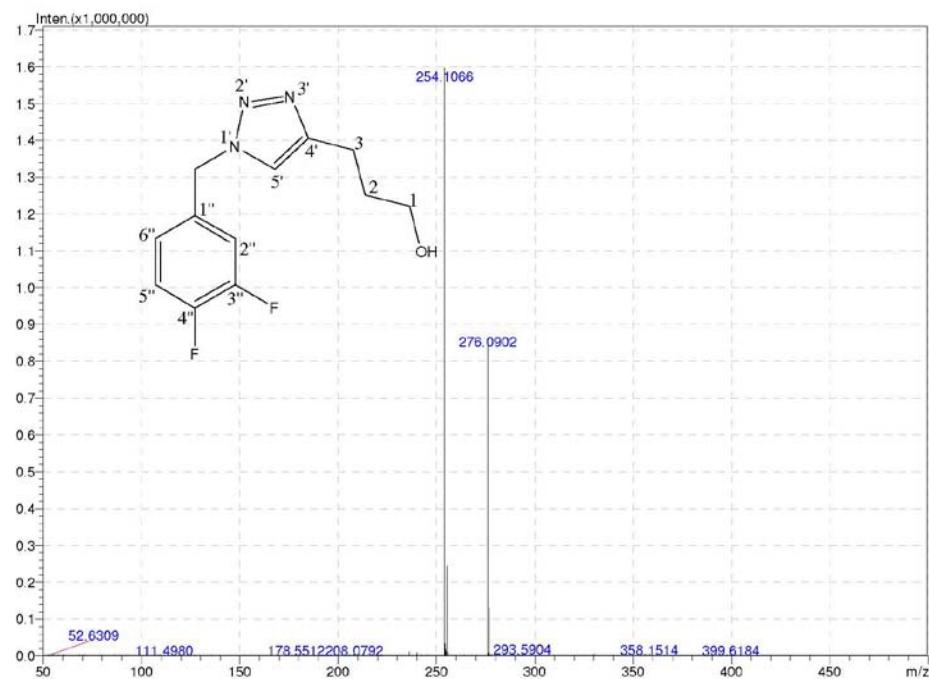


Figure S77. HRMS spectrum of 3-[1'-(3'',4''-difluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4h**).

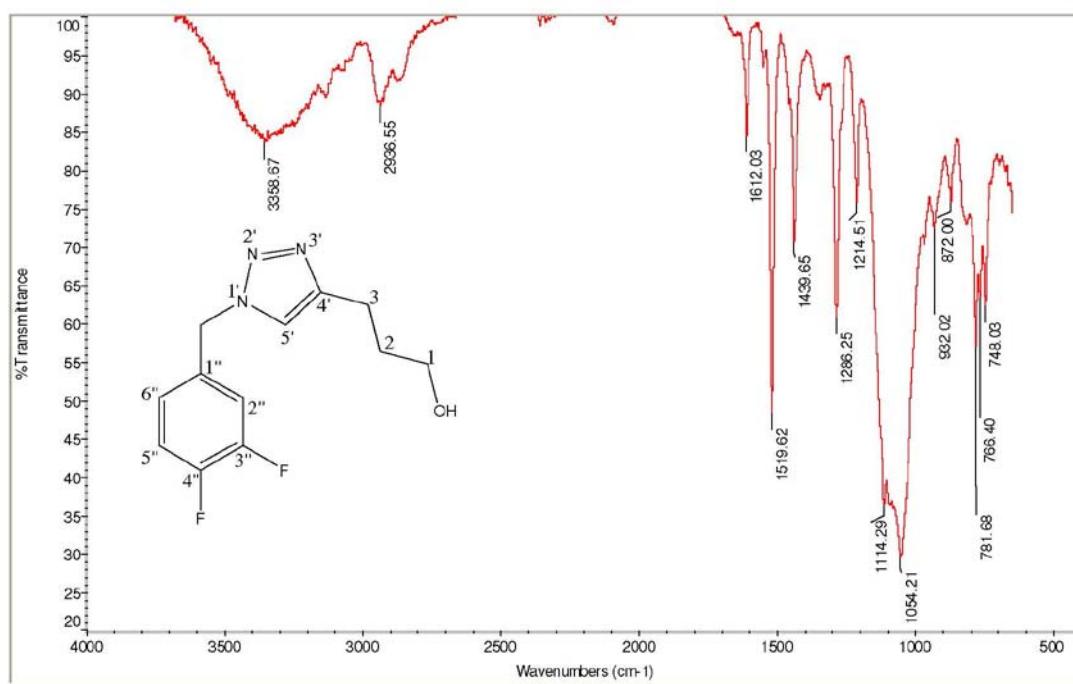


Figure S78. IR (ATR) spectrum of 3-[1'-(3'',4''-difluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4h**).

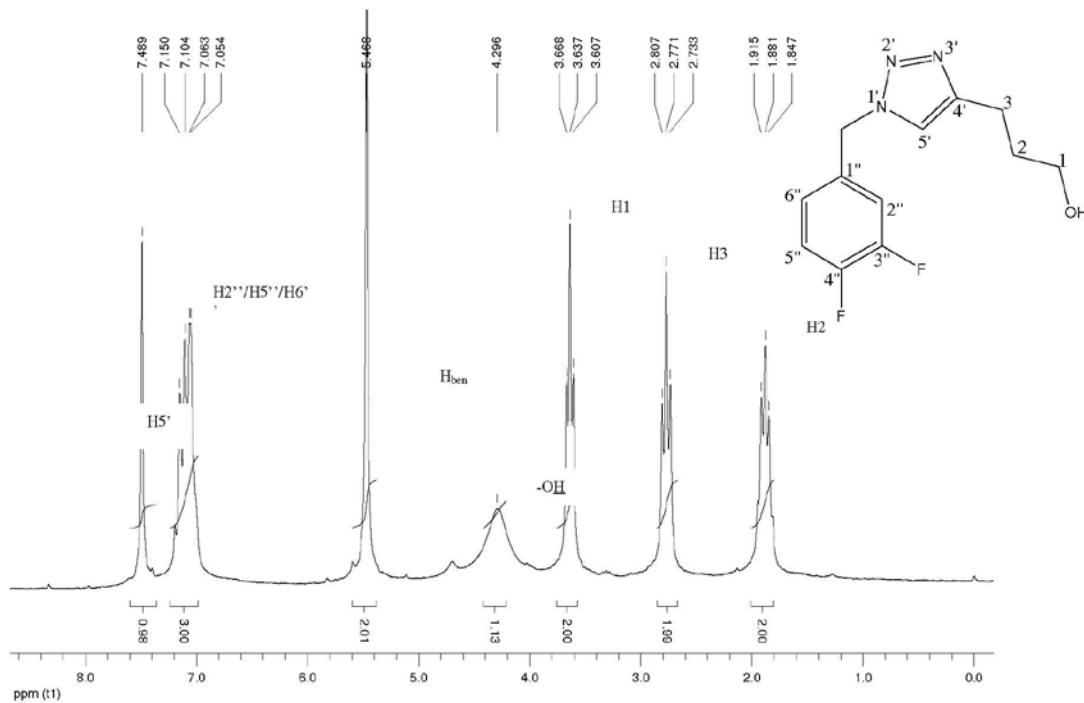


Figure S79. ^1H NMR spectrum (200 MHz, CDCl_3) of 3-[1'-(3'',4''-difluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4h**).

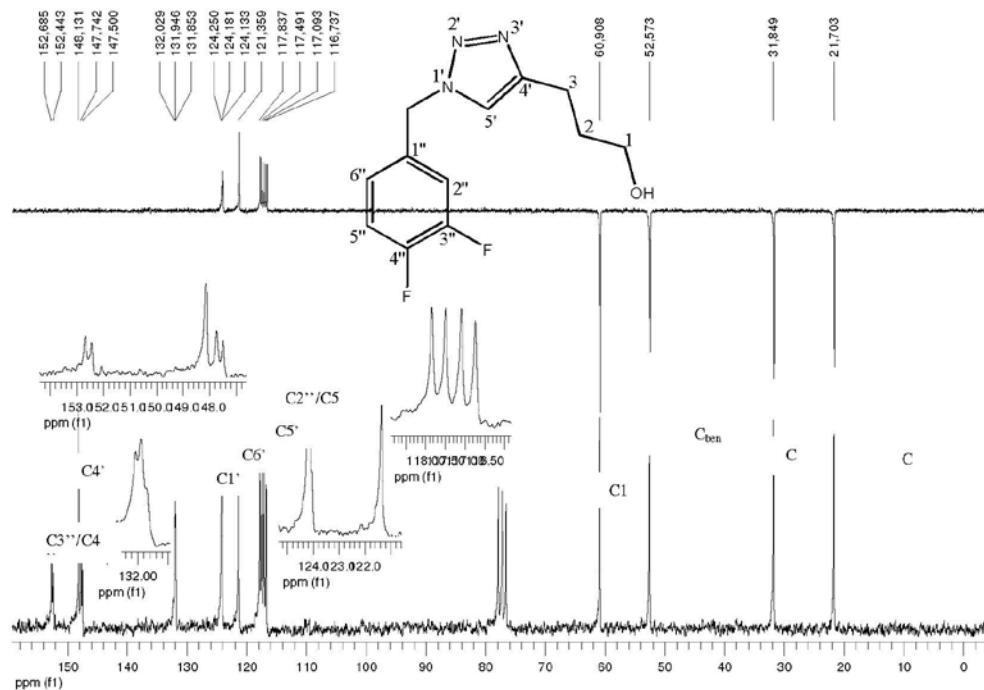


Figure S80. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 3-[1'-(3'',4''-difluorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4h**).

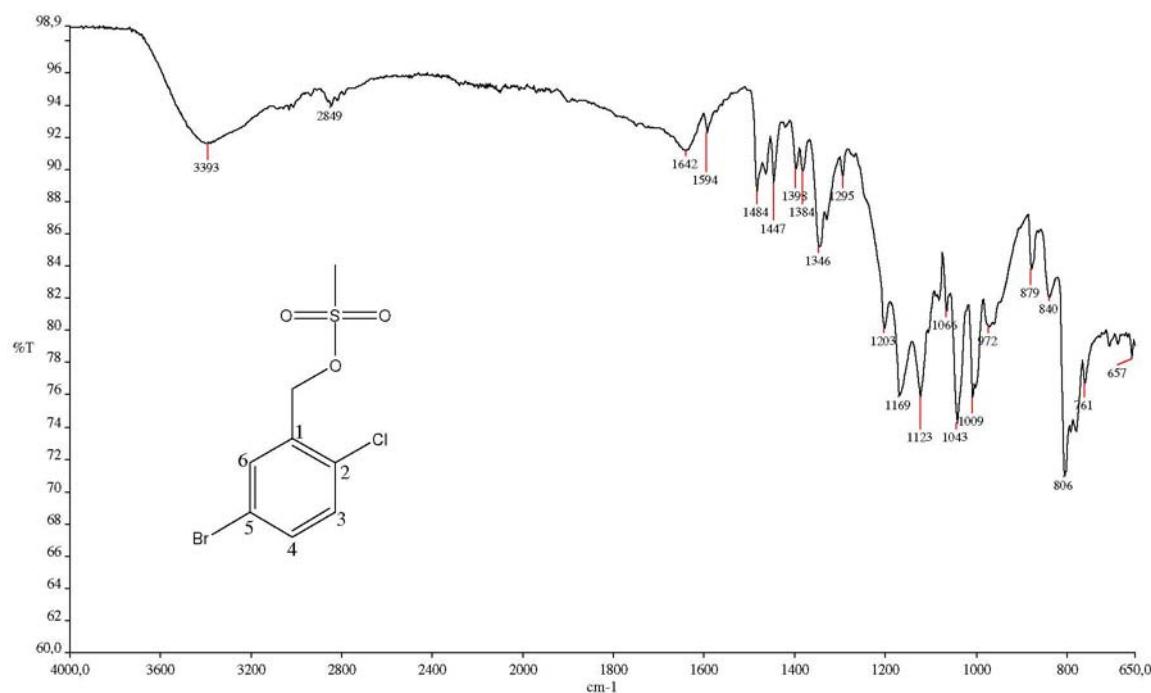


Figure S81. IR (ATR) spectrum of 5-bromo-2-chlorobenzyl methanesulfonate (**2i**).

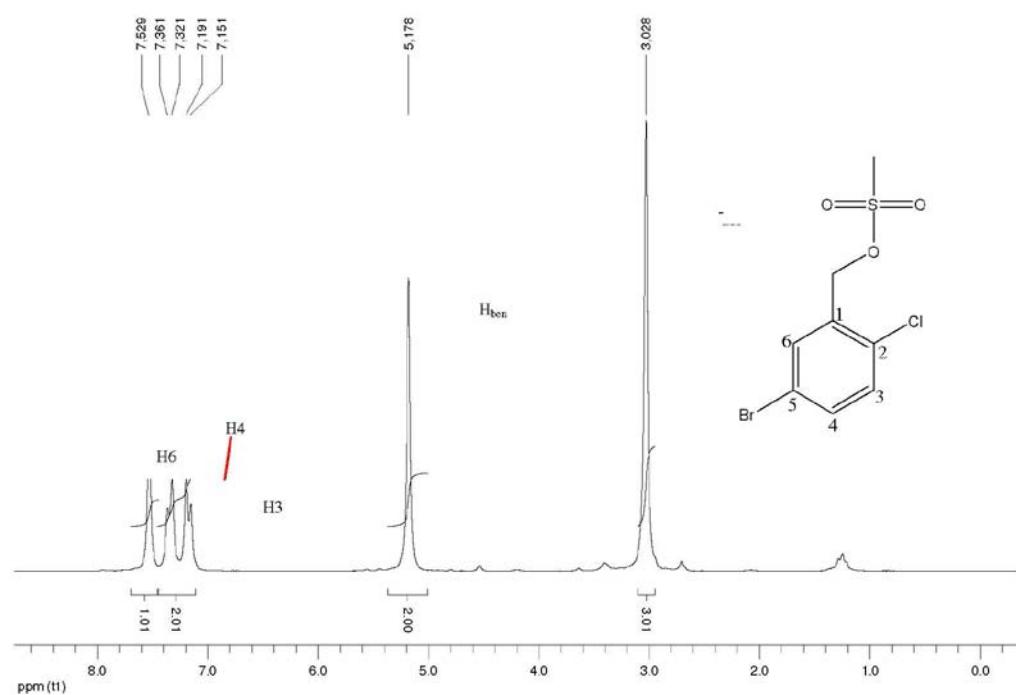


Figure S82. ¹H NMR spectrum (200 MHz, CDCl₃) of 5-bromo-2-chlorobenzyl methanesulfonate (**2i**).

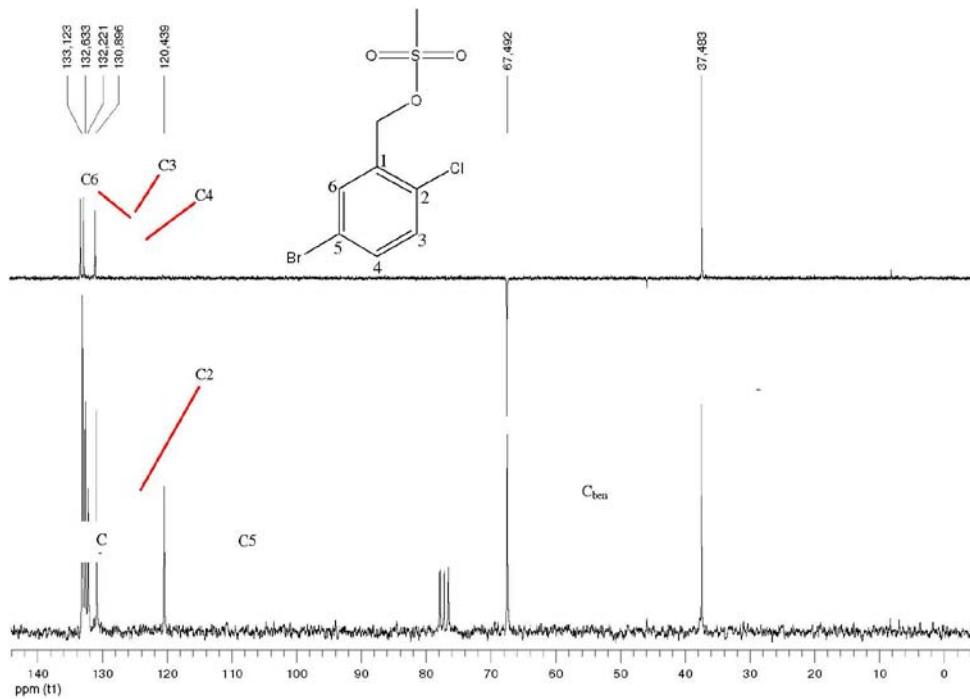


Figure S83. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 5-bromo-2-chlorobenzyl methanesulfonate (**2i**).

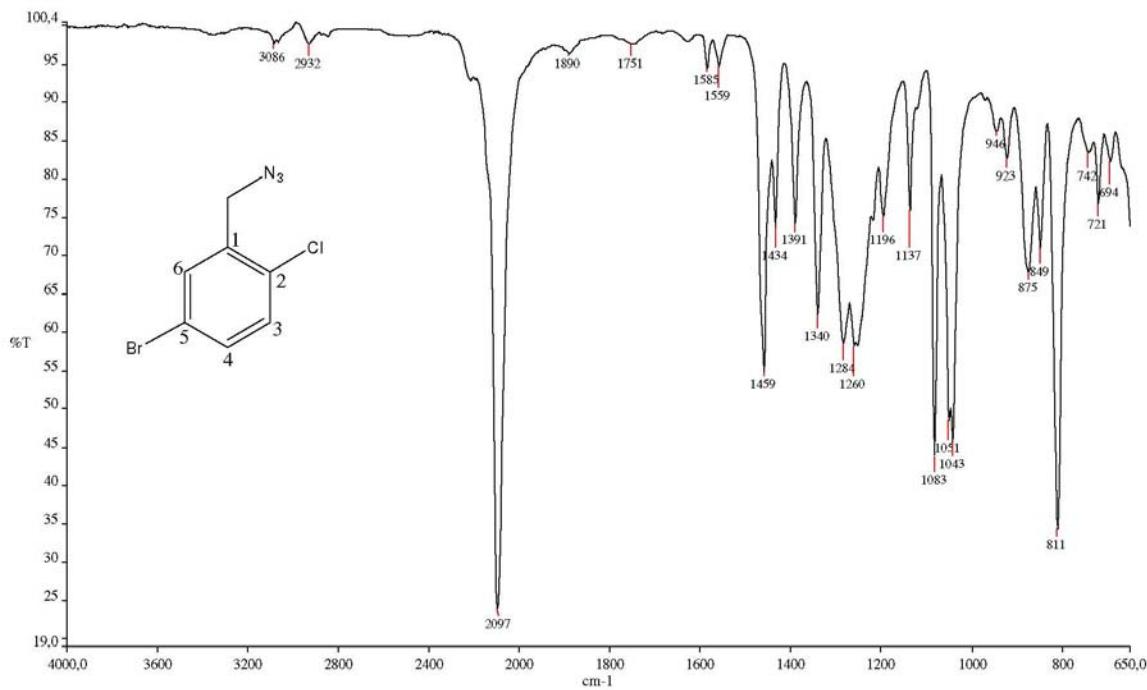


Figure S84. IR (ATR) spectrum of 1-(azidomethyl)-5-bromo-2-chlorobenzene (**3i**).

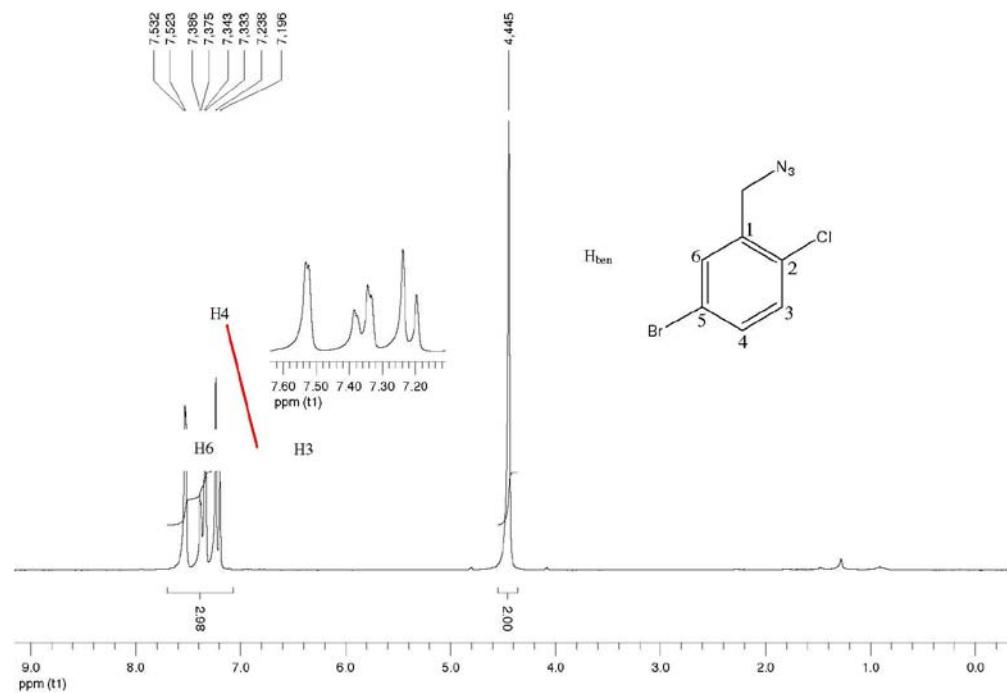


Figure S85. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)-5-bromo-2-chlorobenzene (**3i**).

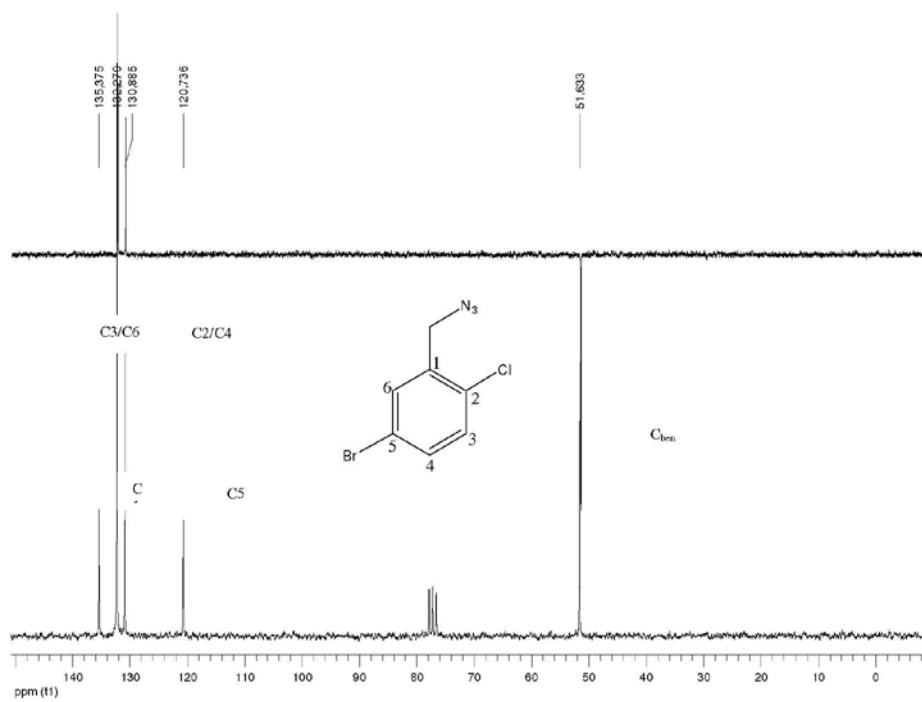


Figure S86. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)-5-bromo-2-chlorobenzene (**3i**).

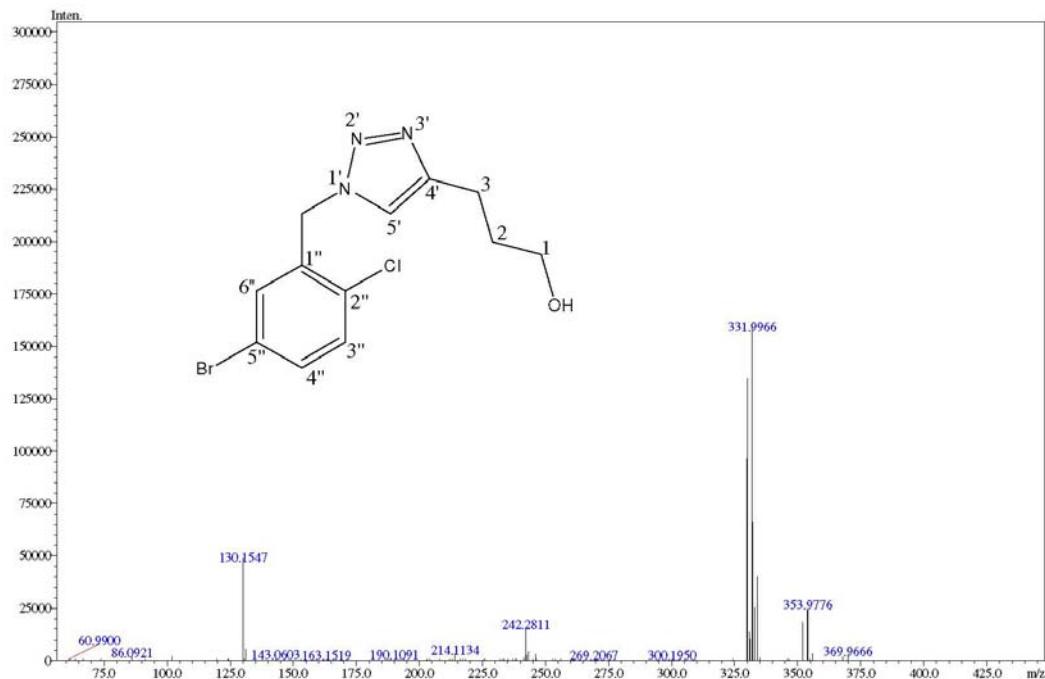


Figure S87. HRMS spectrum of 3-[1'-(5''-bromo-2''-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4i**).

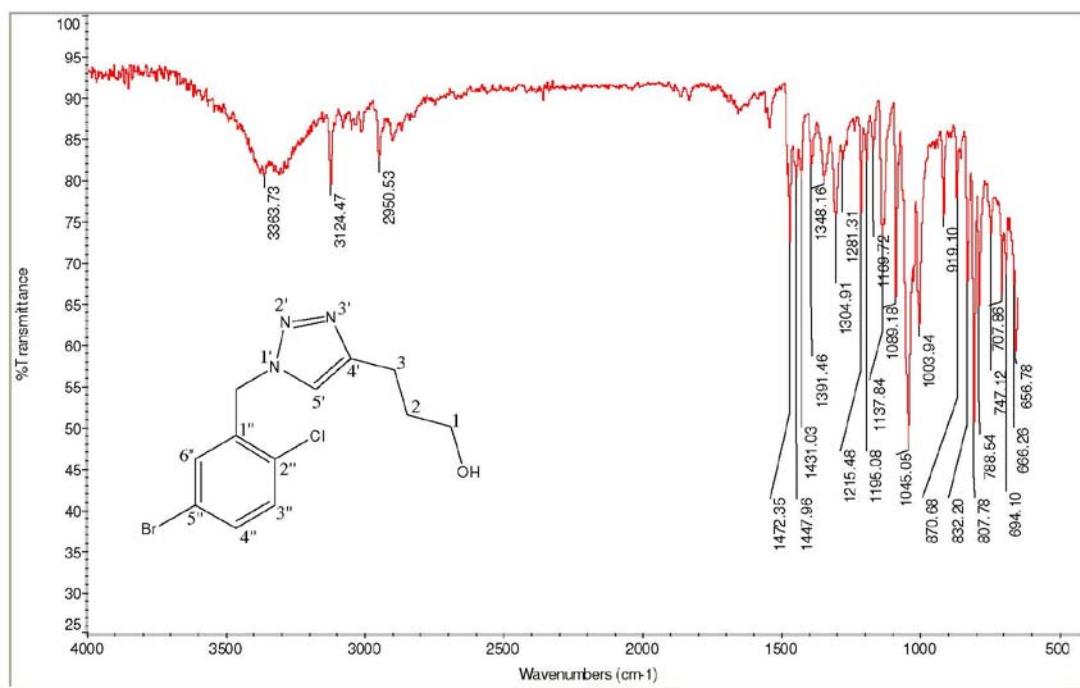


Figure S88. IR (ATR) spectrum of 3-[1'-(5''-bromo-2''-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4i**).

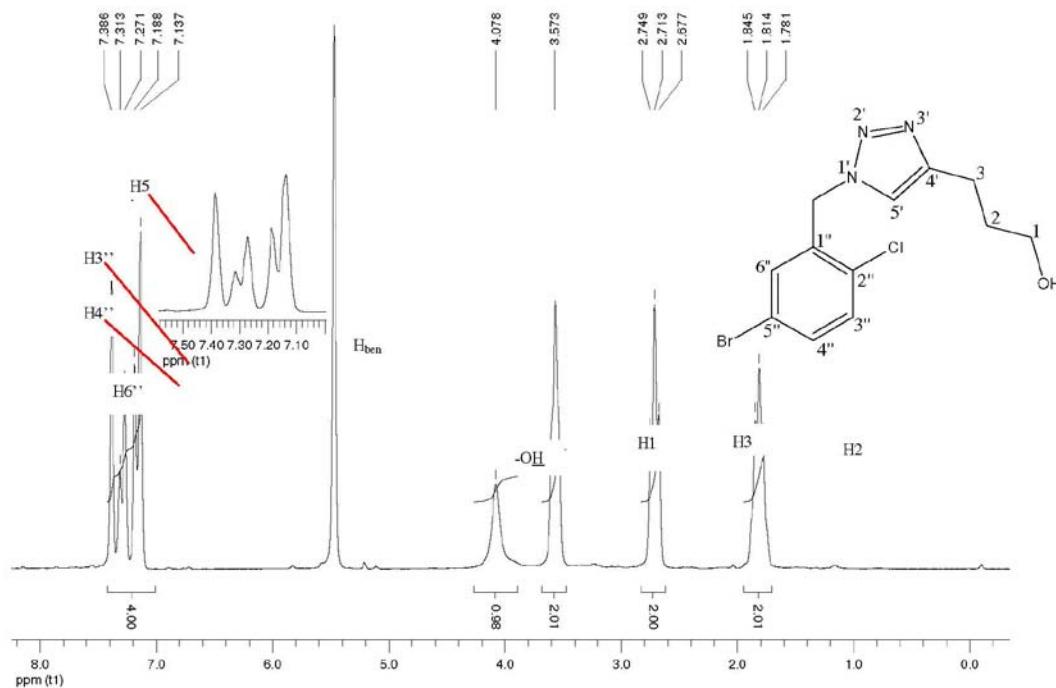


Figure S89. ¹H NMR spectrum (200 MHz, CDCl₃) of 3-[1'-(5''-bromo-2''-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4i**).

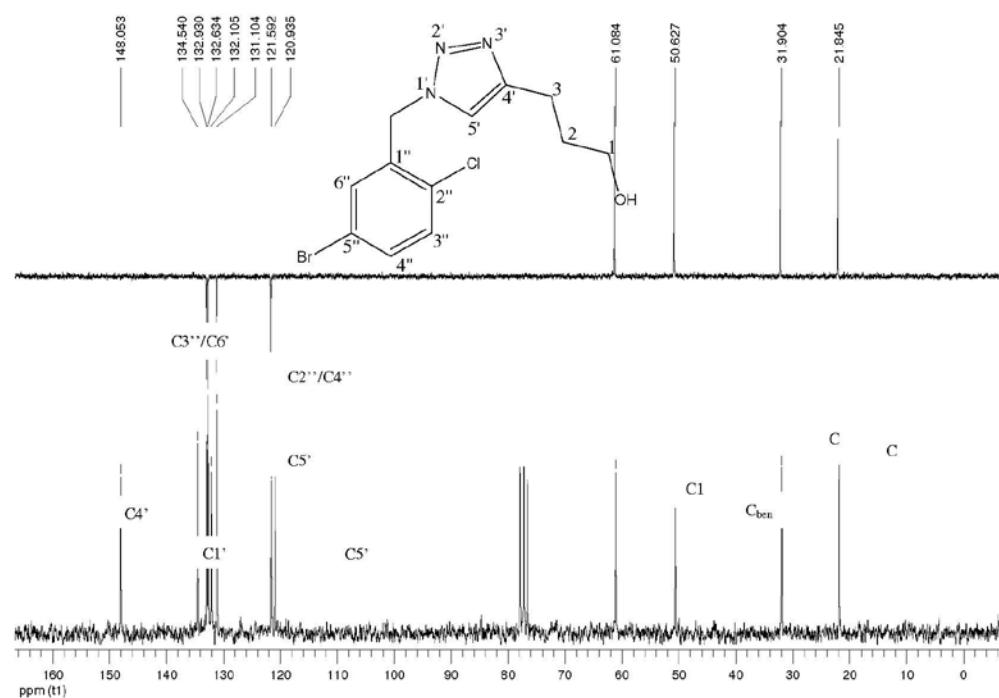


Figure S90. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 3-[1'-(5''-bromo-2''-chlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4i**).

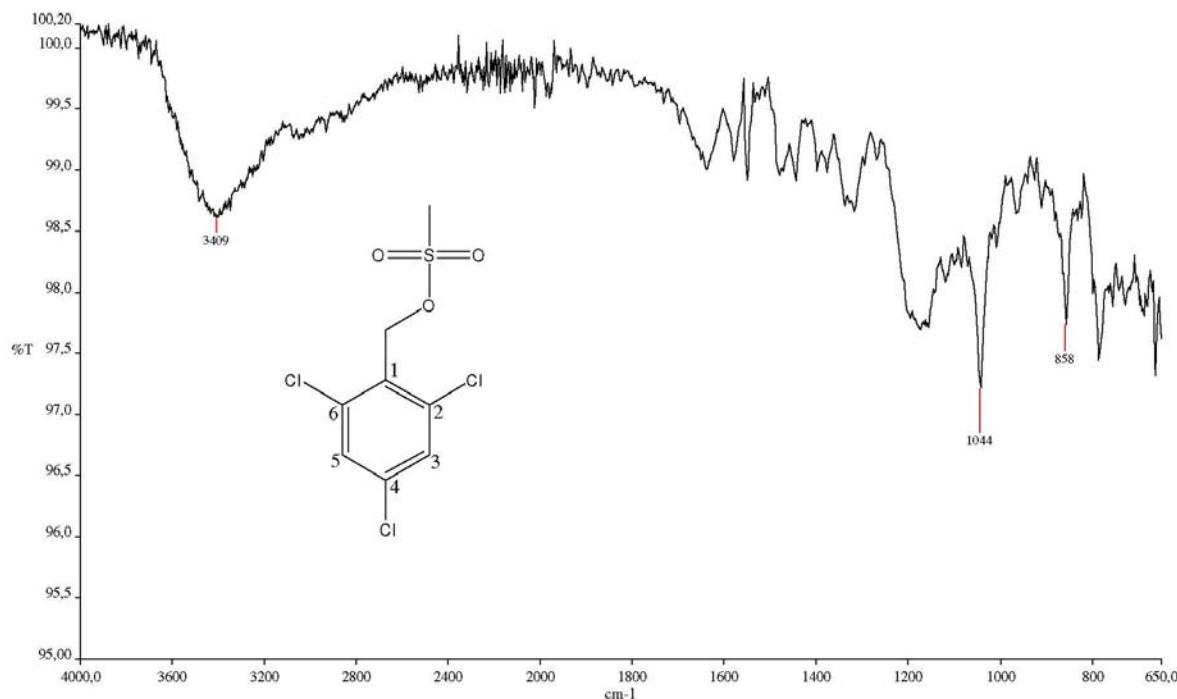


Figure S91. IR (ATR) spectrum of 2,4,6-trichlorobenzyl methanesulfonate (**2j**).

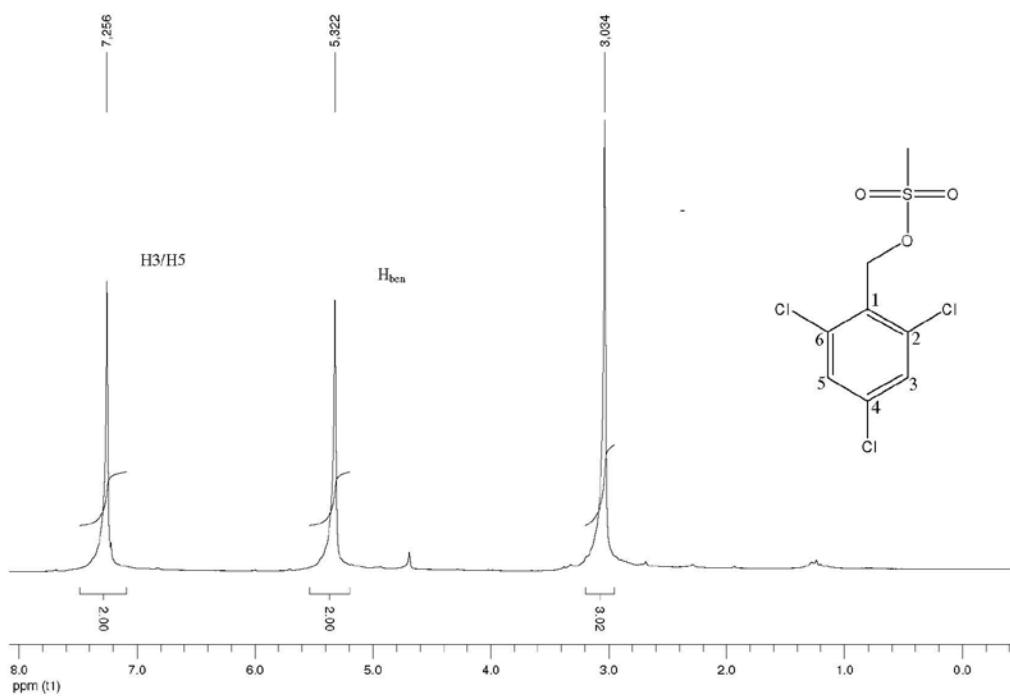


Figure S92. ¹H NMR spectrum (200 MHz, CDCl₃) of 2,4,6-trichlorobenzyl methanesulfonate (**2j**).

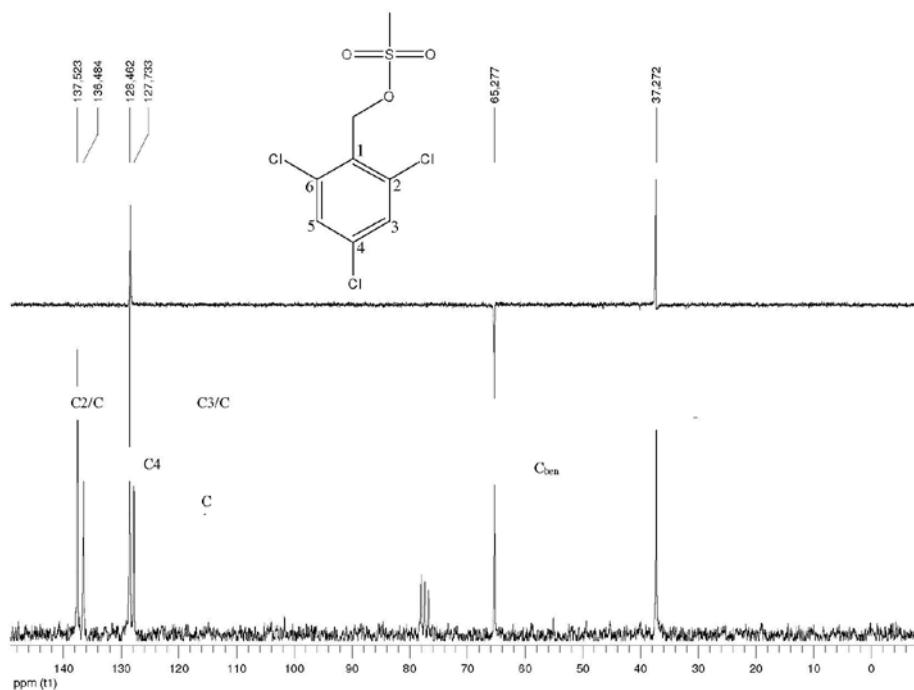


Figure S93. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 2,4,6-trichlorobenzyl methanesulfonate (**2j**).

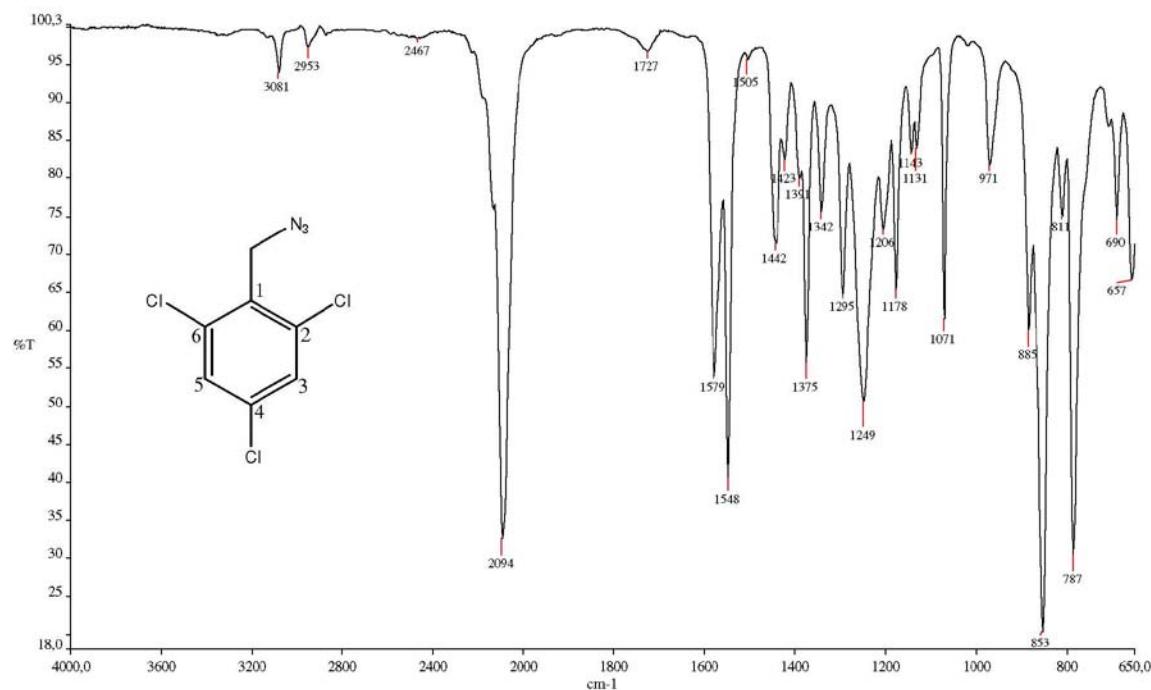


Figure S94. IR (ATR) spectrum of 1-(azidomethyl)-2,4,6-trichlorobenzene (**3j**).

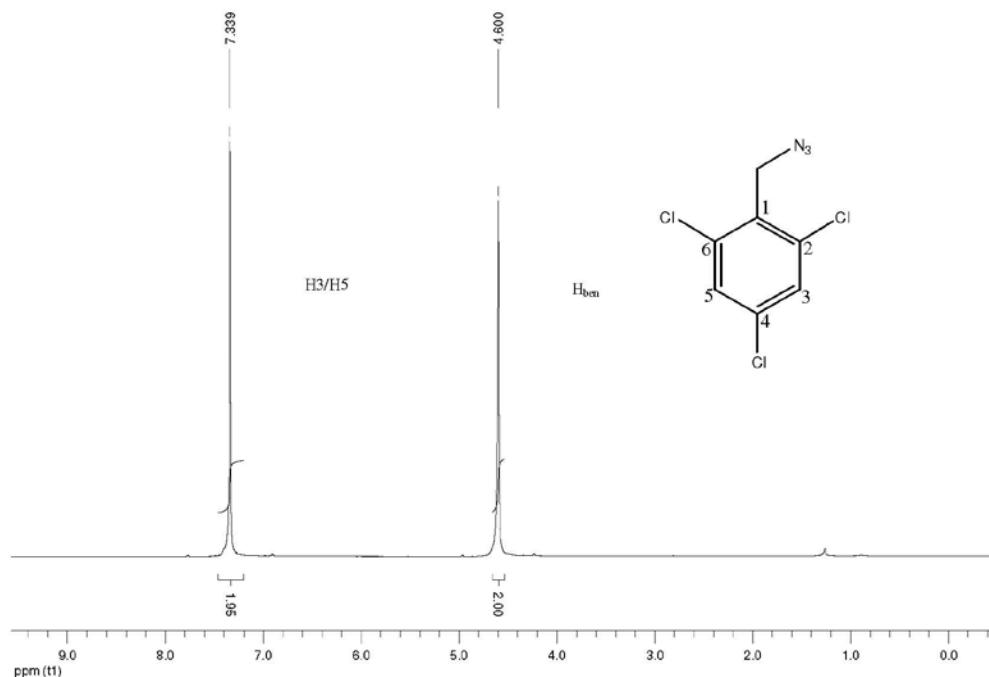


Figure S95. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azidomethyl)-2,4,6-trichlorobenzene (**3j**).

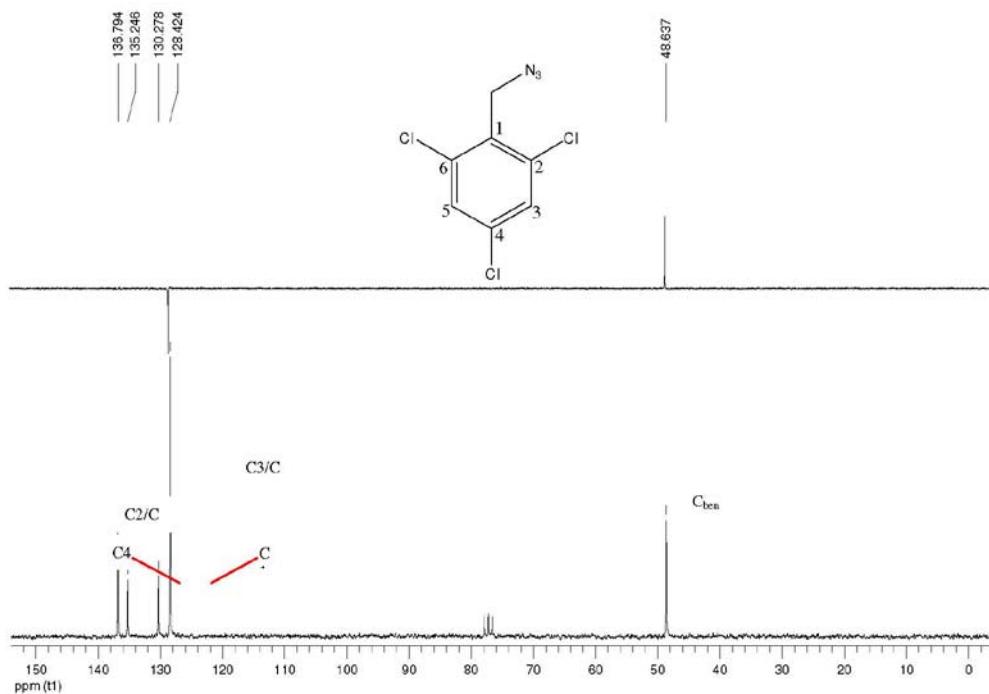


Figure S96. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azidomethyl)-2,4,6-trichlorobenzene (**3j**).

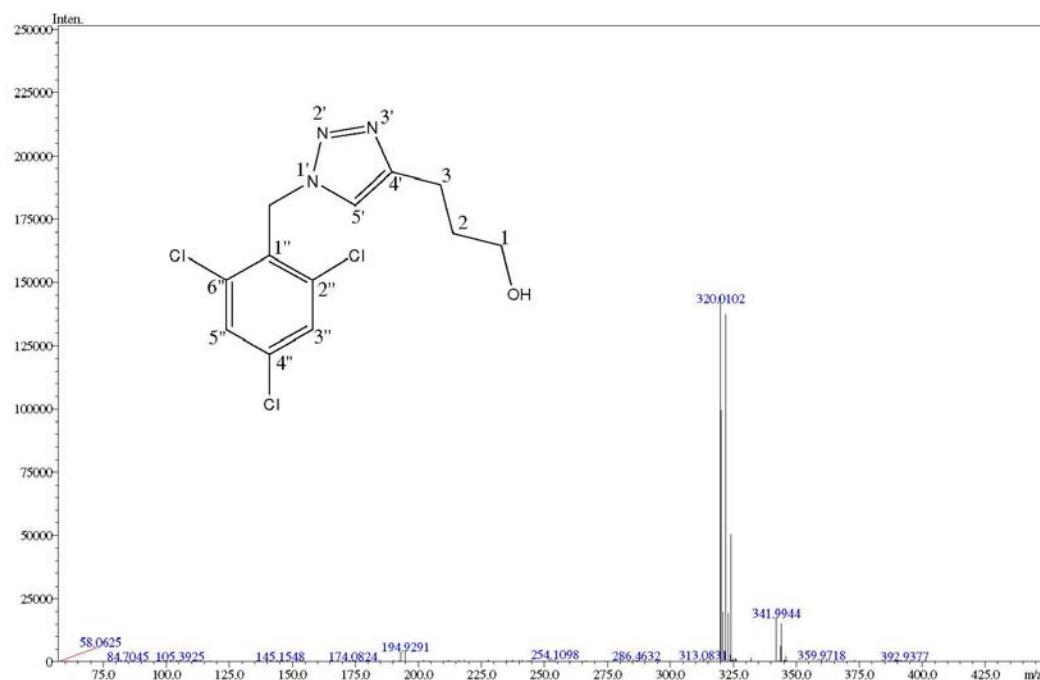


Figure S97. HRMS spectrum of 3-[1'-(2'',4'',6''-trichlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4j**).

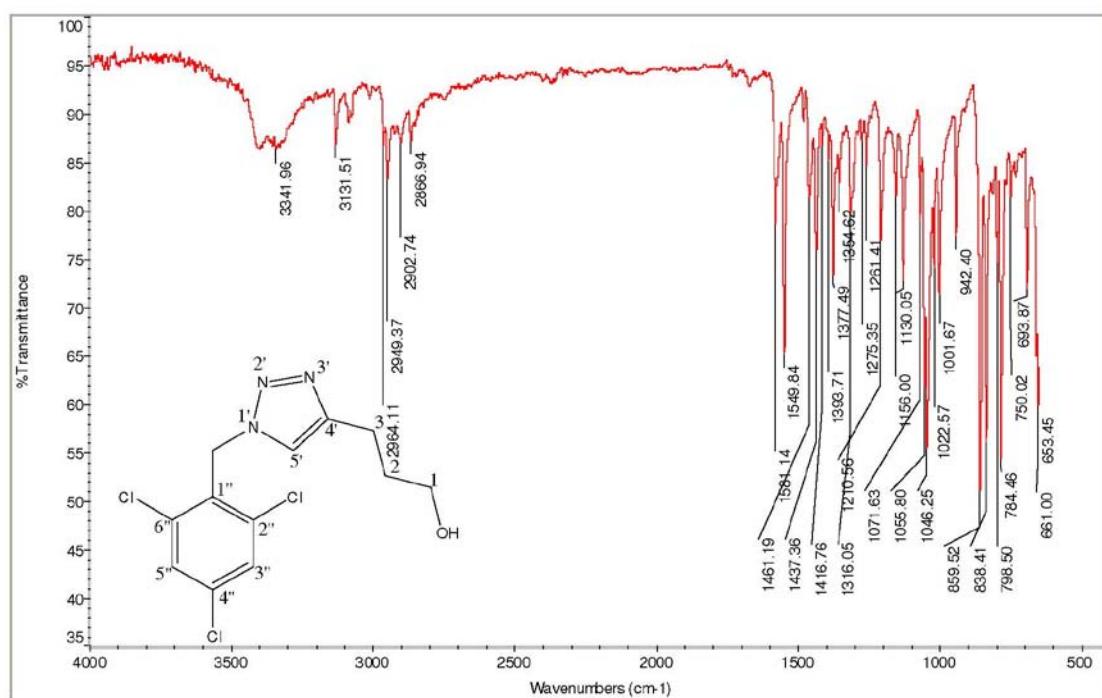


Figure S98. IR (ATR) spectrum of 3-[1'-(2'',4'',6''-trichlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4j**).

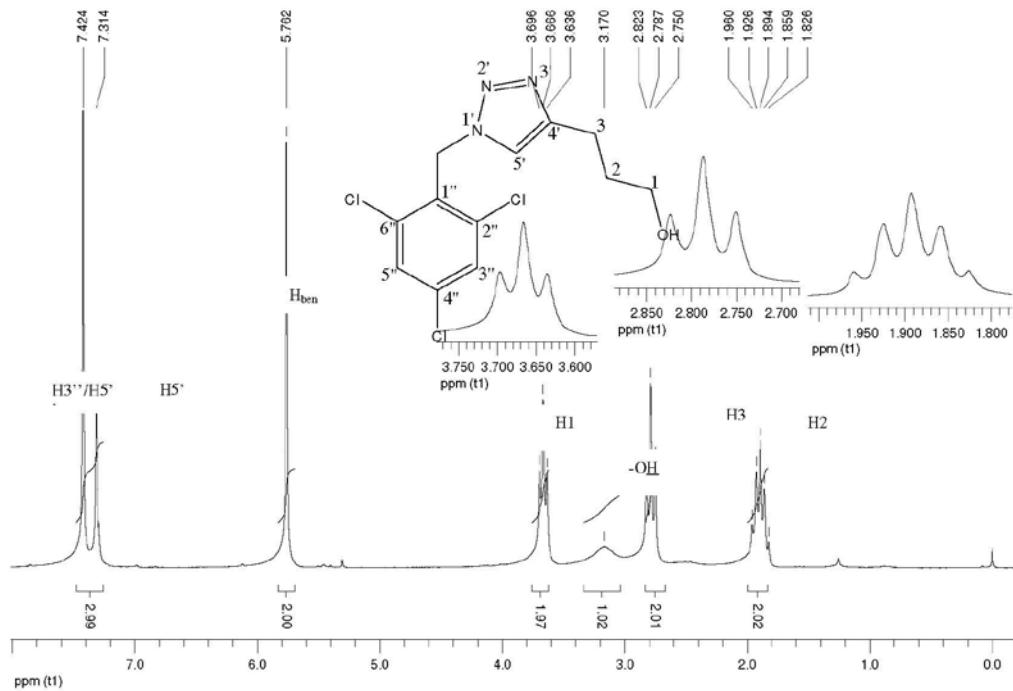


Figure S99. ¹H NMR spectrum (200 MHz, CDCl₃) of 3-[1'-(2'',4'',6''-trichlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4j**).

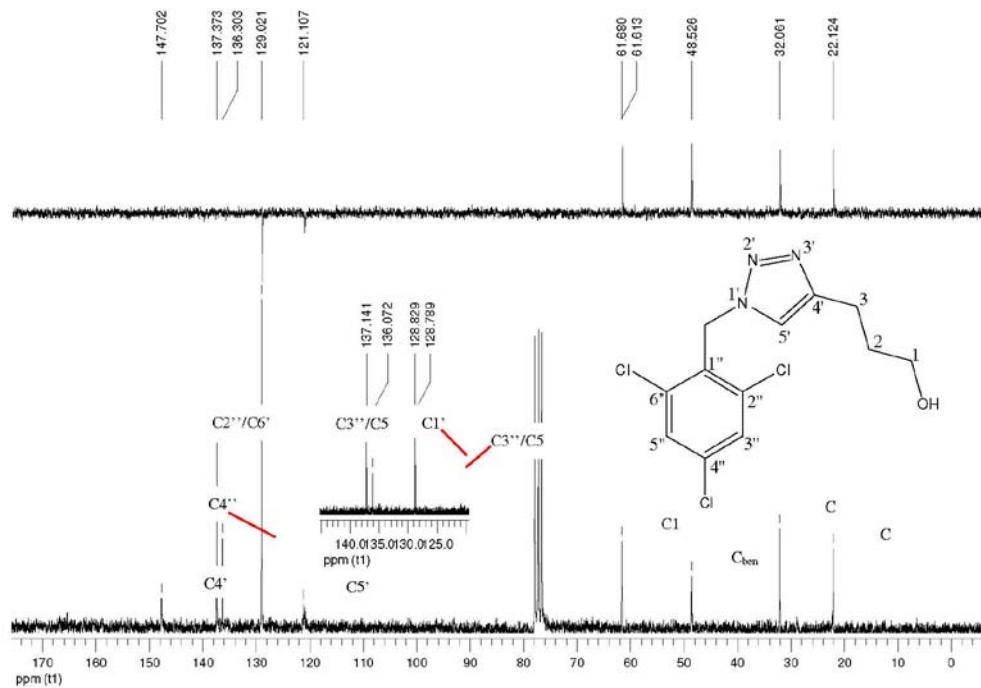


Figure S100. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 3-[1'-(2'',4'',6''-trichlorobenzyl)-1',2',3'-triazol-4'-yl]propan-1-ol (**4j**).

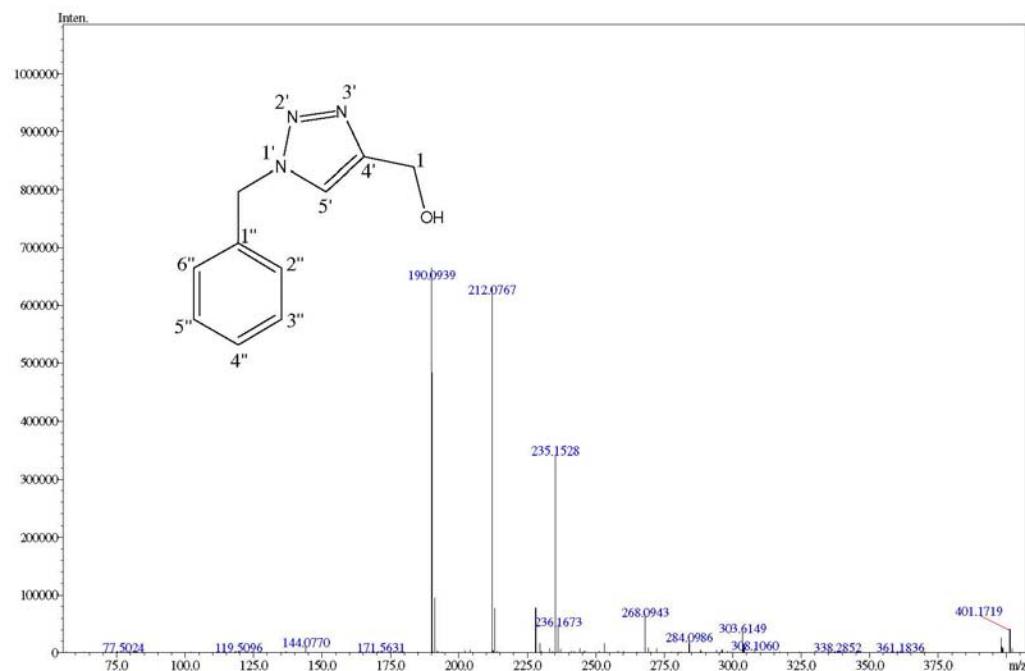


Figure S101. HRMS spectrum of (1'-benzyl-1',2',3'-triazol-4'-yl)methanol (**5a**).

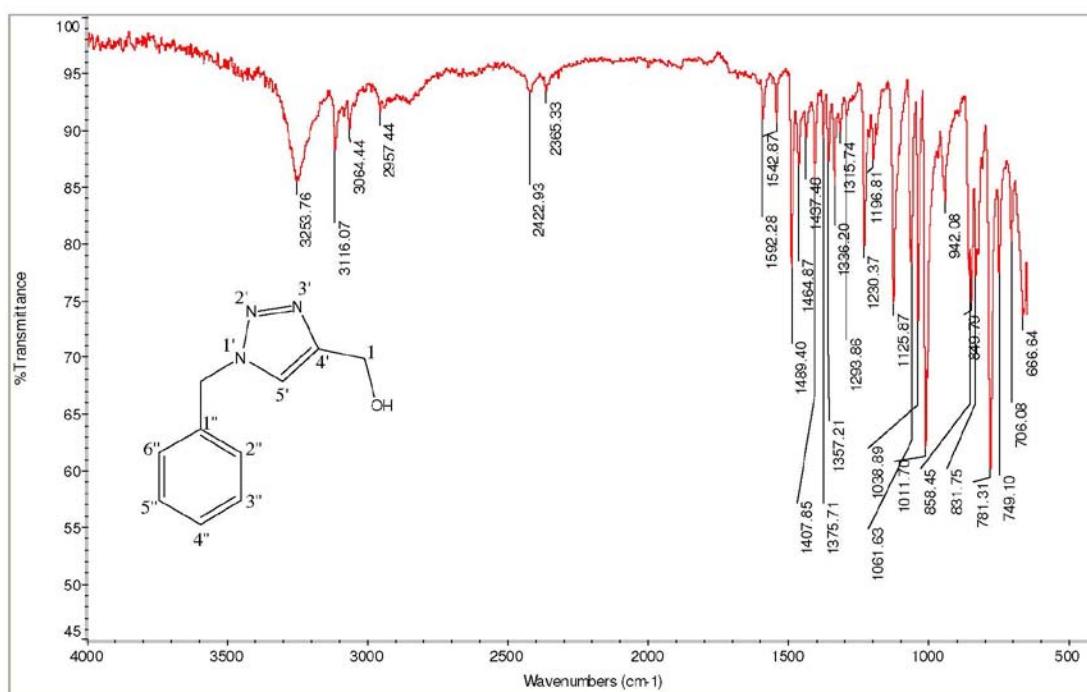


Figure S102. IR (ATR) spectrum of (1'-benzyl-1',2',3'-triazol-4'-yl)methanol (**5a**).

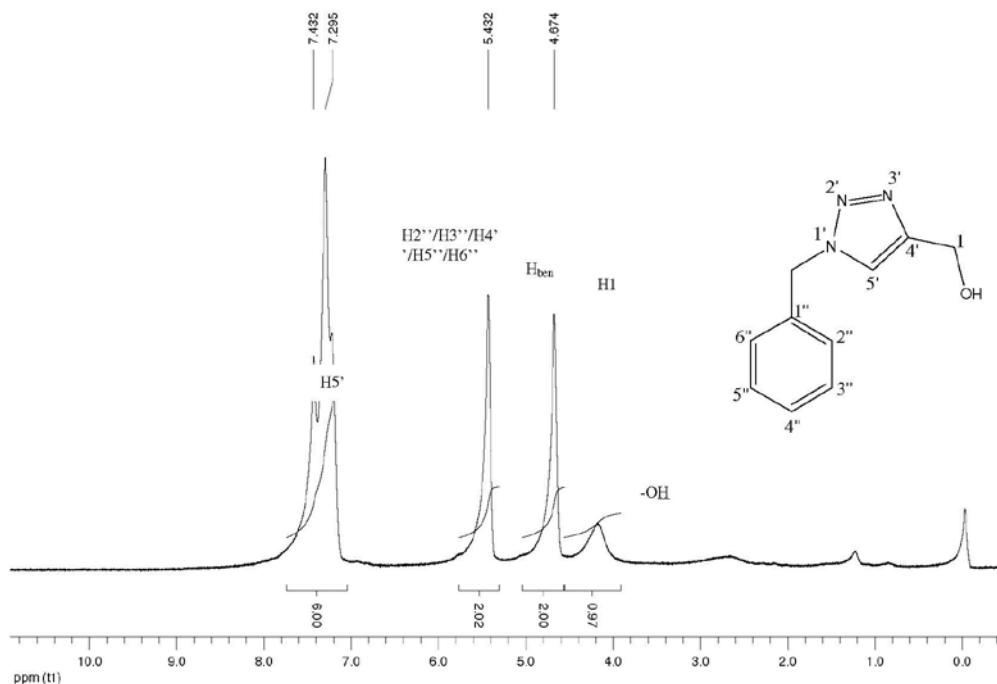


Figure S103. ^1H NMR spectrum (200 MHz, CDCl_3) of ($1'$ -benzyl- $1',2',3'$ -triazol- $4'$ -yl)methanol (**5a**).

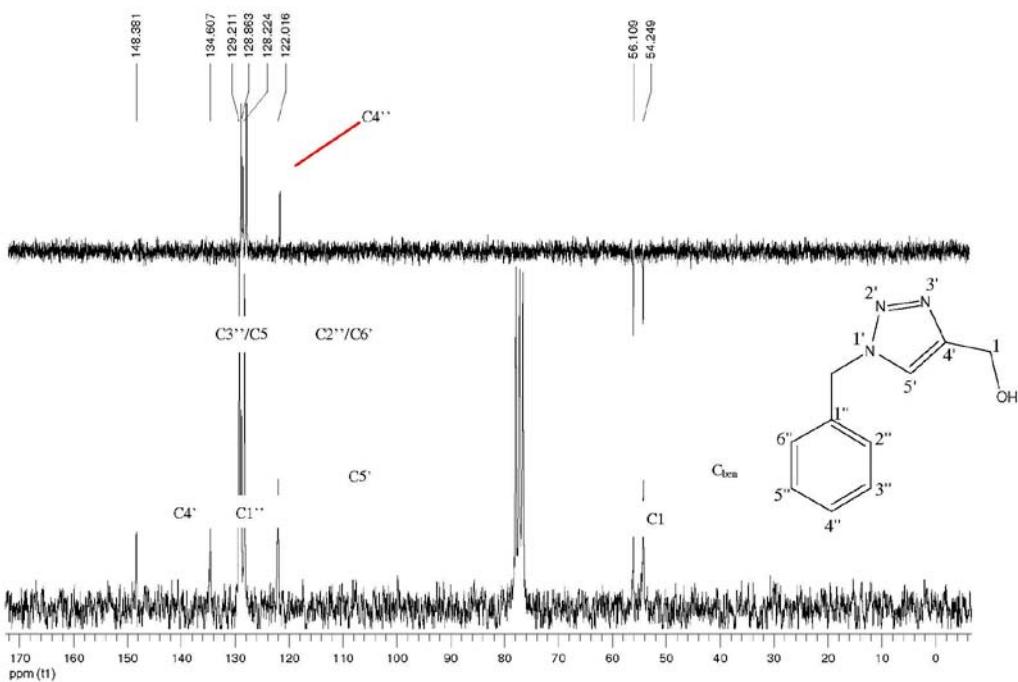


Figure S104. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of ($1'$ -benzyl- $1',2',3'$ -triazol- $4'$ -yl)methanol (**5a**).

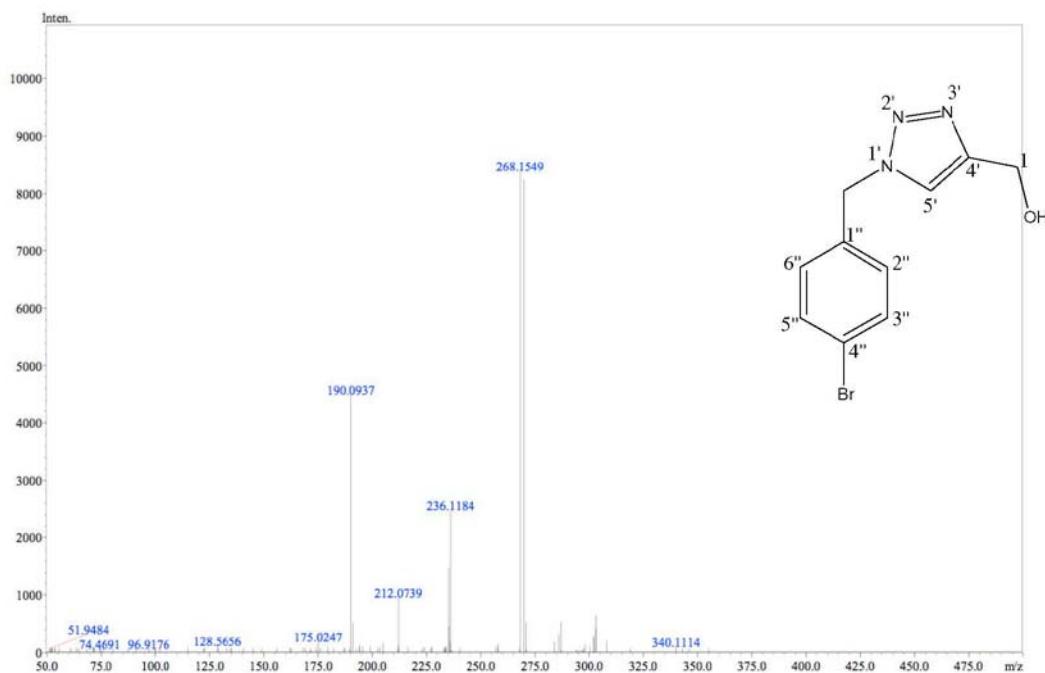


Figure S105. HRMS spectrum of [1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-yl]methanol (**5b**).

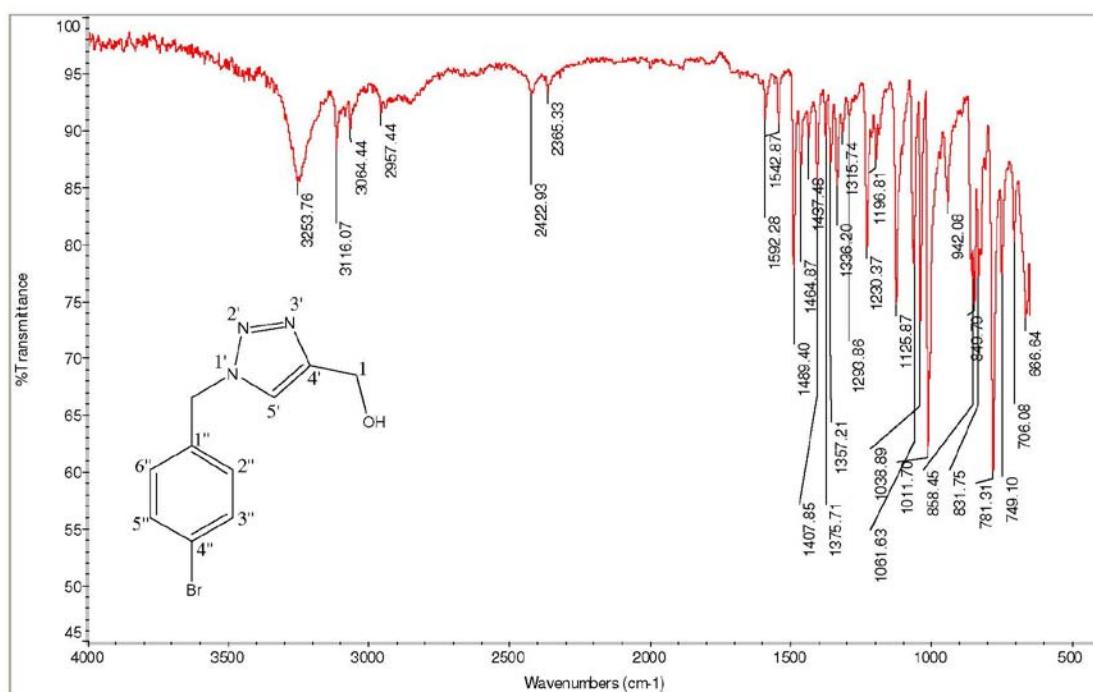


Figure S106. IR (ATR) spectrum of [1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-yl]methanol (**5b**).

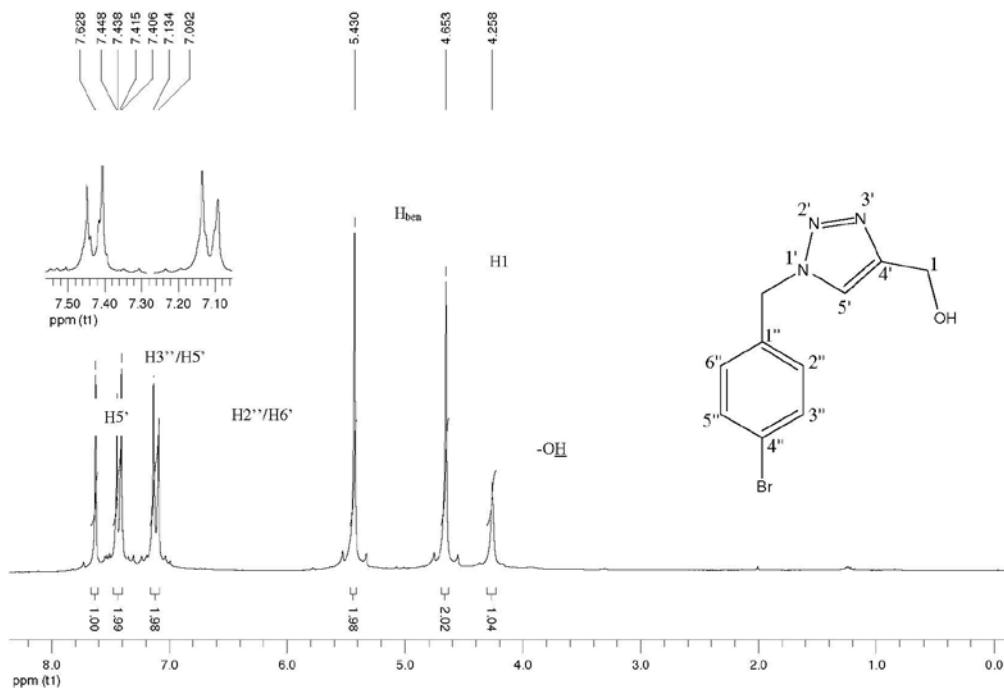


Figure S107. ^1H NMR spectrum (200 MHz, CDCl_3) of [1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-yl]methanol (**5b**).

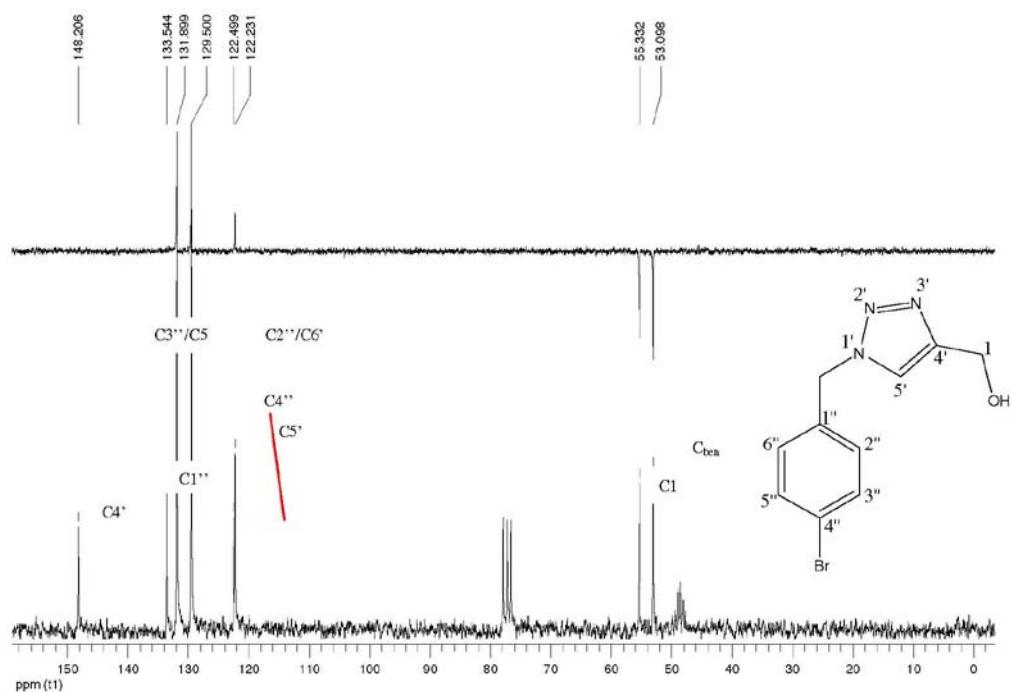


Figure S108. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of [1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-yl]methanol (**5b**).

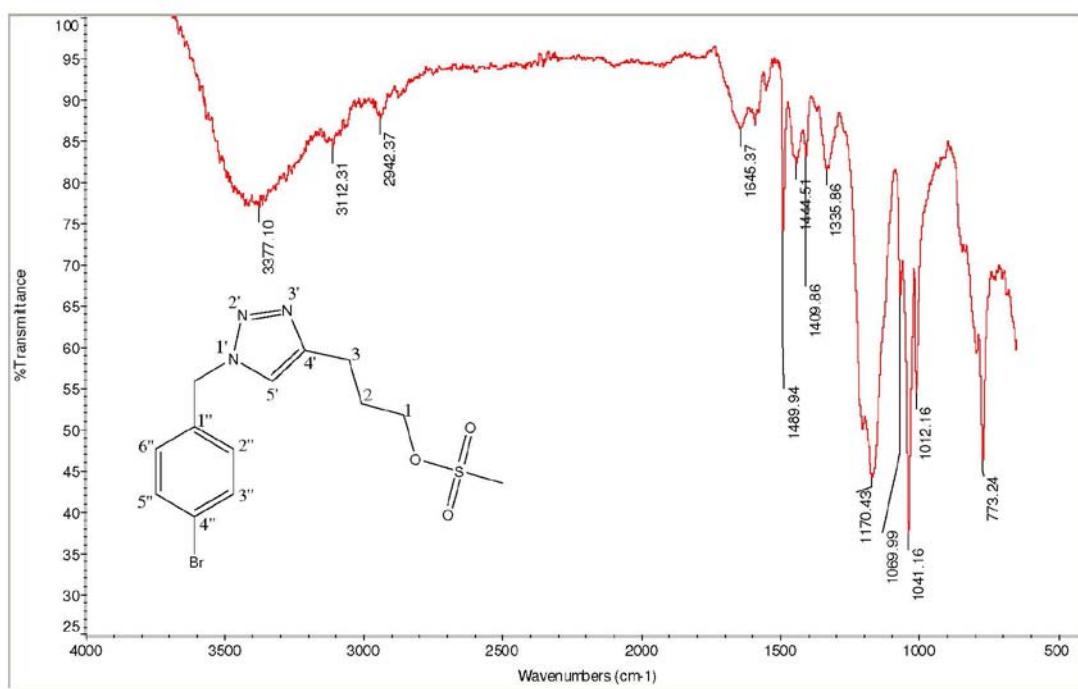


Figure S109. IR (ATR) spectrum of 3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-il]propyl methanesulfonate (**6a**).

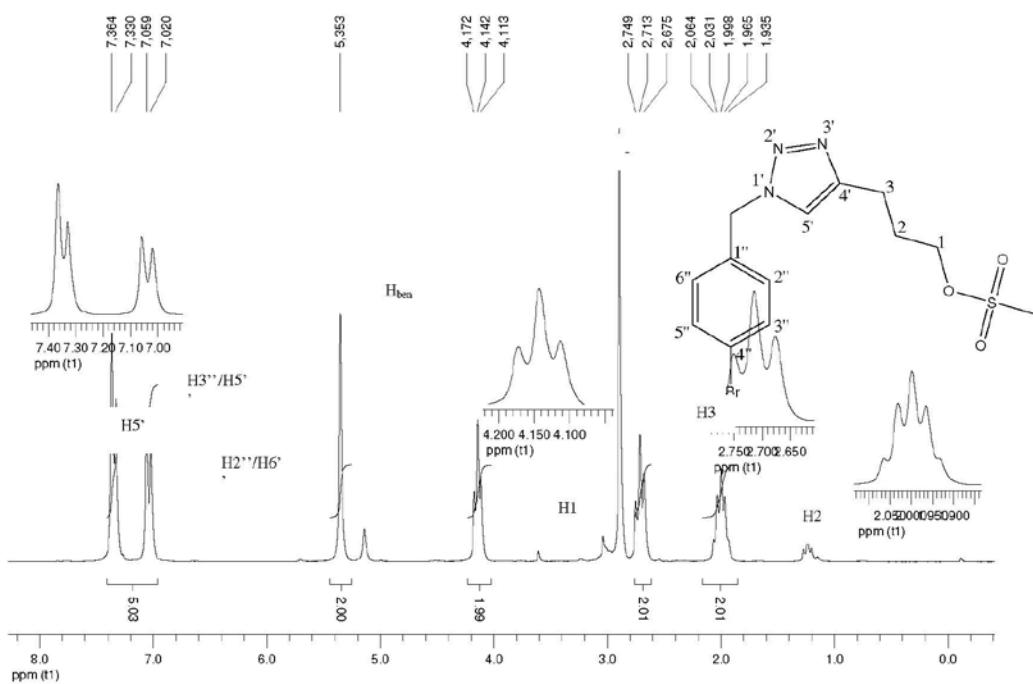


Figure S110. ^1H NMR spectrum (200 MHz, CDCl_3) of 3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-il]propyl methanesulfonate (**6a**).

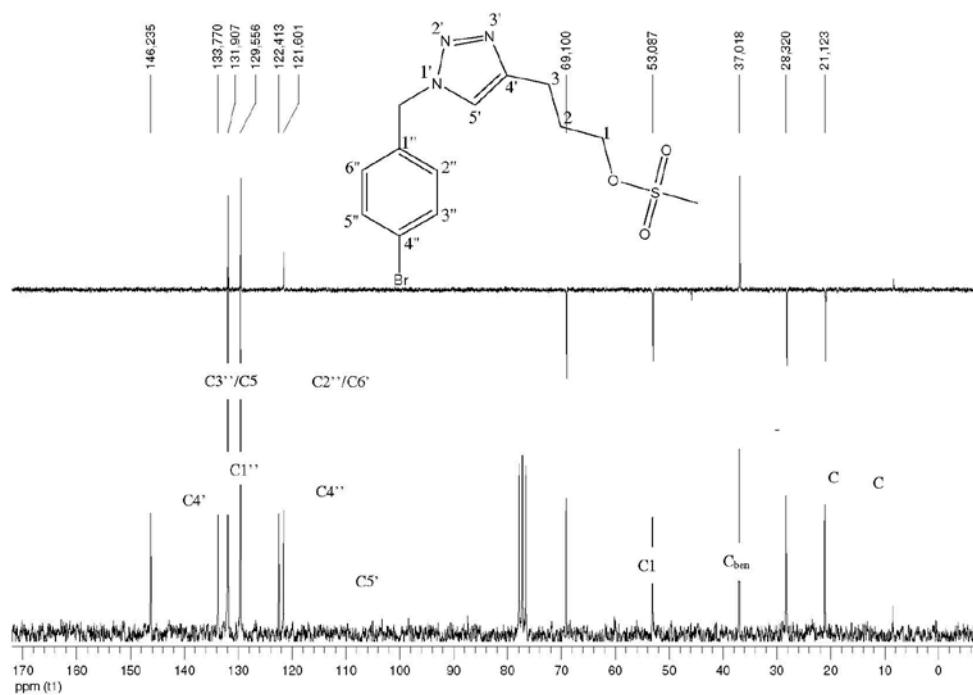


Figure S11. ^{13}C NMR and DEPT-135 spectrum (50 MHz, CDCl_3) of 3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-il]propyl methanesulfonate (**6a**).

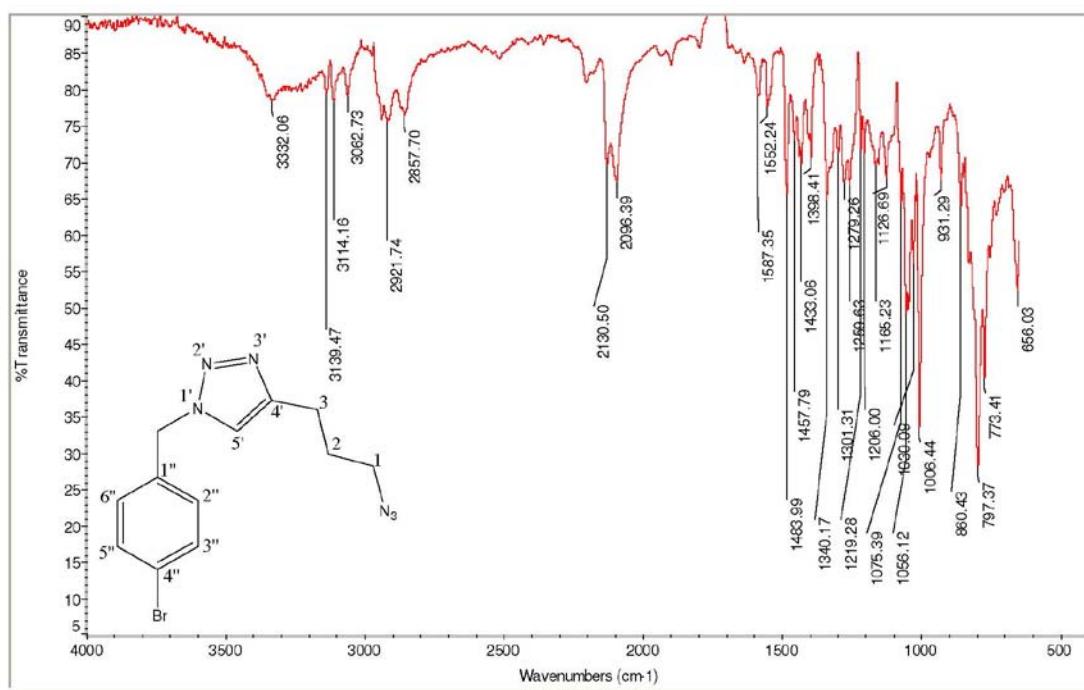


Figure S12. IR (ATR) spectrum of 1-(azido)-3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-il]propyl (**7a**).

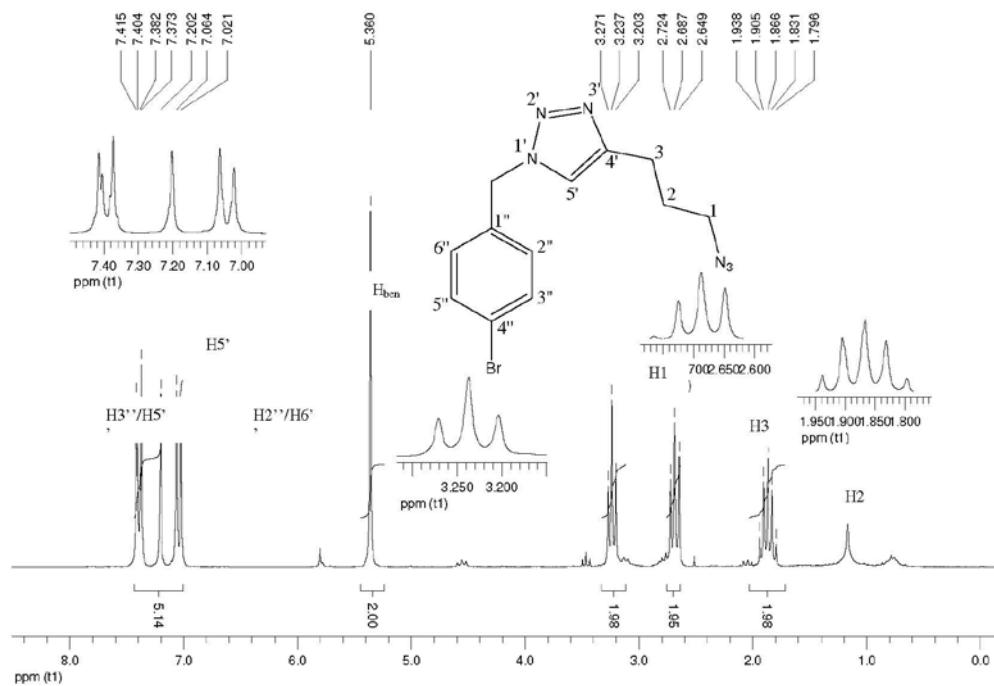


Figure S113. ¹H NMR spectrum (200 MHz, CDCl₃) of 1-(azido)-3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-il]propyl (**7a**).

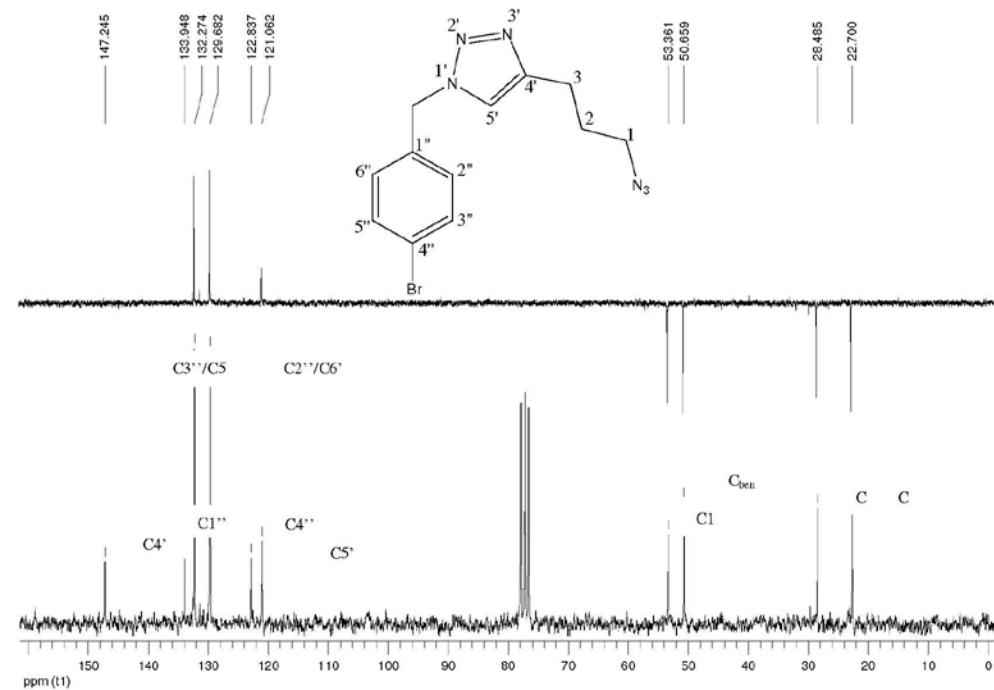


Figure S114. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 1-(azido)-3-[1'-(4''-bromobenzyl)-1',2',3'-triazol-4'-il]propyl (**7a**).

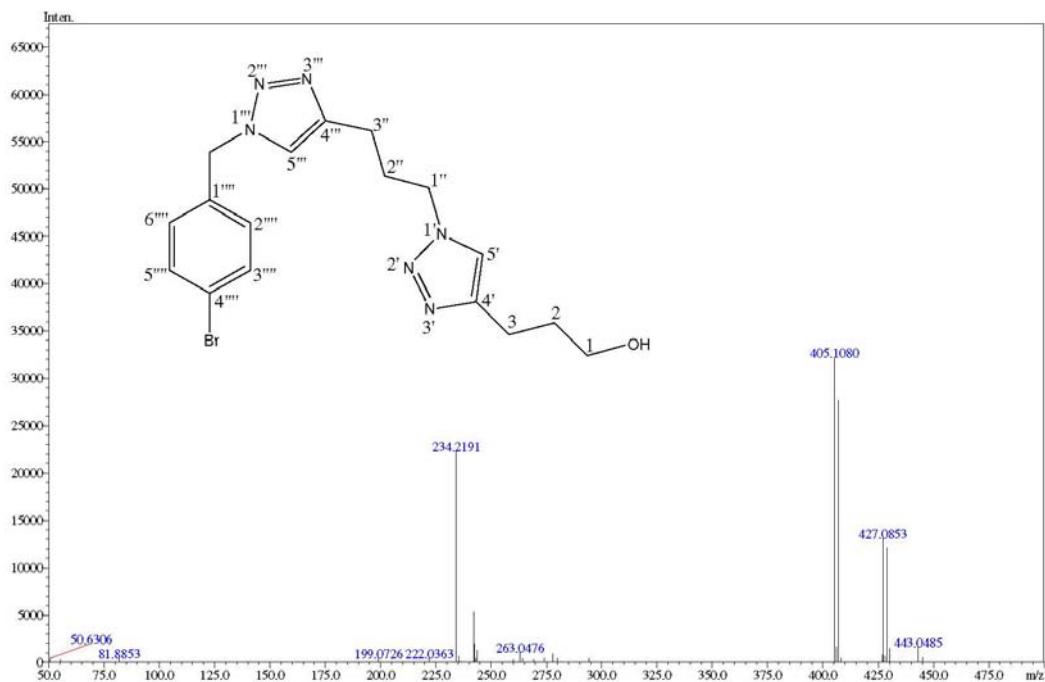


Figure S115. HRMS spectrum of 3-(1'-{3''-[1'''-(4''''-bromobenzyl)-1''',2'',3''-triazol-4''-yl]propyl}-1',2',3'-triazol-4'-yl)propan-1-ol (**8a**).

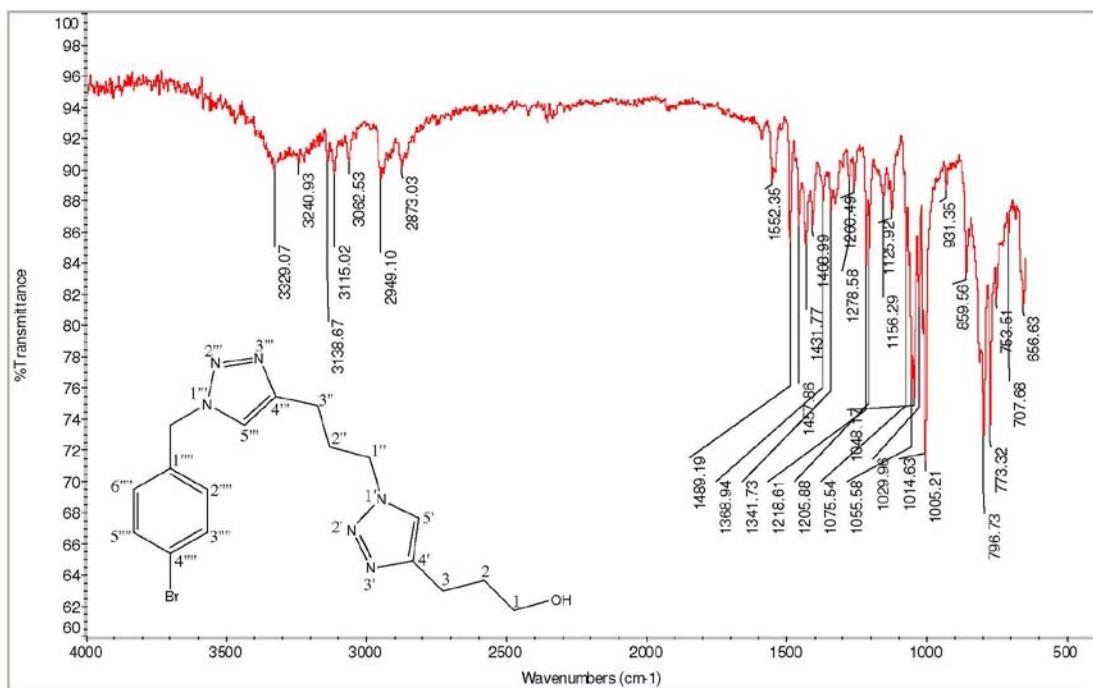


Figure S116. IR (ATR) spectrum of 3-(1'-{3''-[1'''-(4''''-bromobenzyl)-1''',2'',3''-triazol-4''-yl]propyl}-1',2',3'-triazol-4'-yl)propan-1-ol (**8a**).

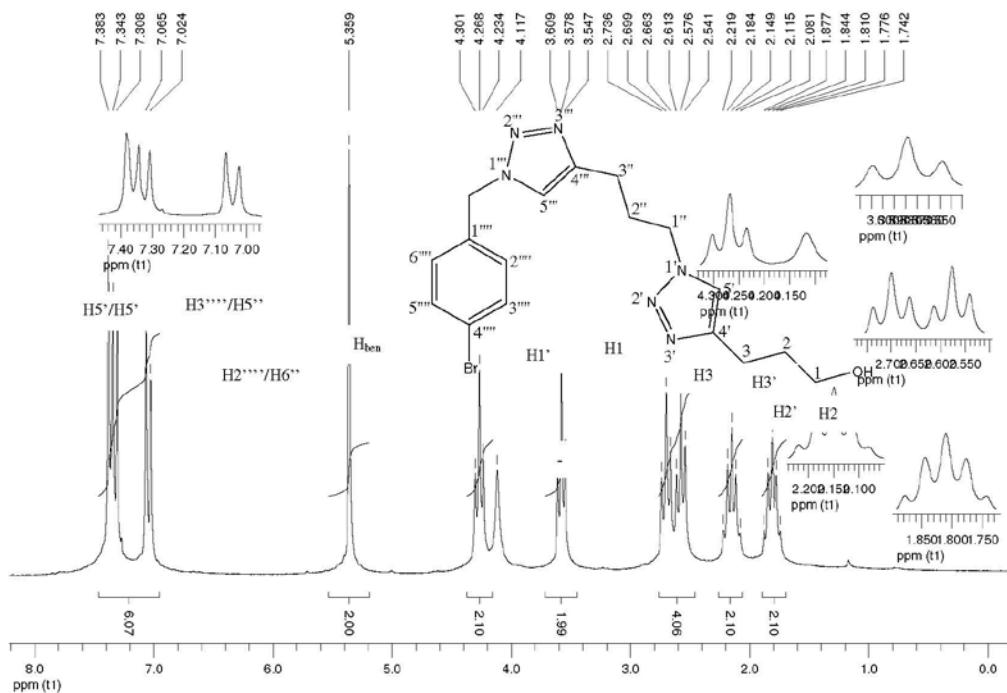


Figure S117. ¹H NMR spectrum (200 MHz, CDCl₃) of 3-(1'-(3''-[1''-(4'''-bromobenzyl)-1'',2'',3''-triazol-4'''-yl]propyl)-1',2',3'-triazol-4'-yl)propan-1-ol (**8a**).

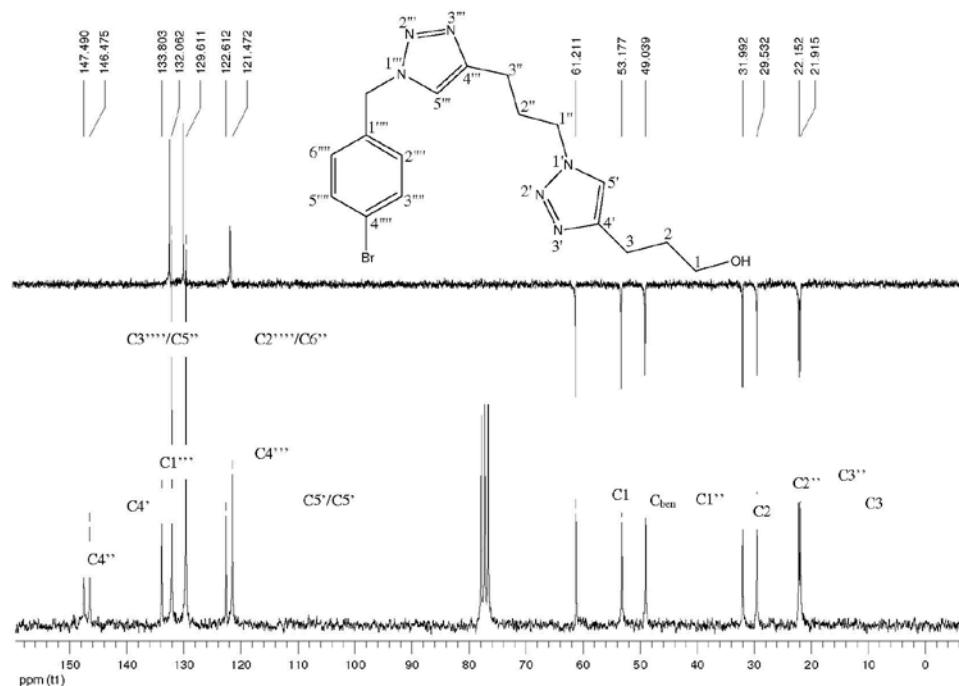


Figure S118. ¹³C NMR and DEPT-135 spectrum (50 MHz, CDCl₃) of 3-(1'-(3''-[1''-(4'''-bromobenzyl)-1'',2'',3''-triazol-4'''-yl]propyl)-1',2',3'-triazol-4'-yl)propan-1-ol (**8a**).