**Supplemental Table 1. Patient samples and their cytogenetic features and prognostic markers.**

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| **Pt #** | **ALC/ µL** | **WBC/ µL** | **Sex** | **Age, years** | **RAI** | **Prior****therapy** | **B2M** | **ATM** | **p53** | **Cytogenetic features** | **ZAP70 status** | **IgVH status** |
| 143 | 37.18 | 40.9 | M | 50 | 0 | Yes | 1.8 | 0 | 0 | Not done | Negative | M |
| 279 | 44.81 | 55.3 | M | 63 | 0 | No | 2.5 | 0 | 0 | 46,XY,add(17)(p13)[4]/46,XY[16] | Positive | UM |
| 352 |   |   | M | 49 |  | No |   |   |   |   | Positive | UM |
| 628 | 58.73 | 66.7 | F | 52 | 0 | No | 2.3 | 0 | 0 | 46,XX[20] | Negative | M |
| 357 | 58.96 | 62.1 | F | 69 | 0 | Yes | 1.9 | 0 | 0 | 46,XX[9] |  | M |
| 876 | 206.85 | 211.1 | M | 56 | 0 | No | 3.6 | 0 | 0 | Not done | Positive | ND |
| 833 | 27.96 | 35.4 | F | 84 | 0 | No | 3.2 | 0 | 0 | Not done | ND | M |
| 634 | 146.69 | 157.7 | M | 71 | 2 | Yes | 3.7 | 15.5 | 0 | Not done | Positive | UM |
| 502 | 64.38 | 67.8 | M | 57 | 4 | No | 3.6 | 18 | 0 | 46,XY,del(11)(q23)[3]/46,Y,t(X;9)(q26;q13),t(3;17)(q21;p13)[1]/46,XY[16] | Negative | UM |
| 911 | 48.83 | 55.5 | F | 81 | 1 | Yes | 3.6 | 0 | 0 | 46,XX[1] | ND | M |
| 258 | 112.78 | 118.7 | F | 75 | 4 | Yes | ND | 0 | 0 | Not done | Negative | M |
| 818 | 154.42 | 167.9 | M | 56 | 1 | No | 2.2 | 0 | 0 | Not done | Negative | M |
| 047 | 77.17 | 87.7 | M | 58 | 2 | No | 2.3 | 0 | 0 | Not done | Negative | UM |
| 967 | 54.03 | 56.9 | M | 79 | 1 | Yes | 3.4 | 0 | 0 | 46,XY[20] | Negative | NR |
| 663 | 98.19 | 103.4 | M | 74 | 4 | Yes | 5.9 | 0 | 0 | 47,XY,+22[3]/46,XY,t(10;17)(q24;q25)[1]/46,XY[9] | Positive | M |
| 281 | 31.21 | 32.9 | F | 73 | 1 | No | 2.1 | 0 | 0 | Not done | Positive | M |
| 714 | 31.43 | 37.4 | F | 52 | 0 | Yes | 1.4 | 0 | 0 | 46,XX[20] | Negative | M |
| 527 | 40.71 | 49.1 | M | 63 | 0 | No | 2.3 | ND | ND | Not done | Positive | NR |
| 045 | 178.53 | 196.2 | M | 69 | 0 | Yes | 2 | 19 | 0 | Not done | Negative | NR |
| 427 |   |   | M | 61 |  |   |   |   |   |   |  |  |
| 343 | 86.18 | 101.4 | F | 77 | 0 | Yes | 4.6 | 0 | 0 | Not done | Positive | M |
| 893 | 42.27 | 46 | M | 55 | 1 | No | 2 | 0 | 0 | Not done | Positive | M |
| 786 | 132.28 | 142.2 | M | 53 | 1 | No | 2.8 | 0 | 0 | 46,XY,del(13)(q14.1q21.1)[9]/49,XY,+Y,+13,del(13)(q31q34),del(16)(q22q24),+18[1]/46,XY[10] | Negative | M |
| 519 | 7.37 | 11.2 | M | 70 | 0 | No | 1.8 | 0 | 0 | 46,XY[20] | Negative | NR |
| 932 | 104.25 | 112.1 | F | 49 | 1 | No | 2.4 | ND | ND | 46,XX[12] |  |  |

M: male, F: female, ALC absolute lymphocyte count, UM: unmutated, M: mutated, ND: not done,

**Supplemental Table 2. Antibodies for immunoblots and their sources**

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| Antibodies  | Source; catalogue no. |
| Akt | Cell Signaling Technology, Danvers, MA; 2920 |
| pAkt | Cell Signaling Technology, Danvers, MA; 9271 |
| Bcl-2  | Dako, Carpinteria, CA; M0887 |
| BTK | BD Biosciences, San Jose, CA; 61116 |
| pBTK | Cell Signaling Technology, Danvers, MA; 5082 |
| Erk | Cell Signaling Technology, Danvers, MA; 9107 |
| pErk | Cell Signaling Technology, Danvers, MA; 4370 |
| Mcl-1 | Thermo Fisher Scientific, Rockford, IL; AHO0102 |
| PARP | BD Biosciences, San Jose, CA; 556362 |
| Casp3 | Cell Signaling Technology, Danvers, MA; 9665 |
| pS6 | Cell Signaling Technology, Danvers, MA; 4858 |
| S6 | Cell Signaling Technology, Danvers, MA; 2317 |
| Vinculin | Sigma-Aldrich, St. Louis, MO |