

Heightened BTK-dependent cell proliferation in unmutated chronic lymphocytic leukemia confers increased sensitivity to ibrutinib

Supplementary Materials

Supplementary Table 1: Patients clinical and pathological characteristics

| Pt. # | Age | Sex | WBC ($\times 10^6/\text{mL}$) | Rai | Therapy | ZAP70 | IGHV | CD38 | FISH abnormalities* |
|--------|-----|-----|------------------------------------|-----|---------|----------|-------|----------|--|
| CLL005 | 64 | M | 10 | 1 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL008 | 75 | M | 10 | 4 | T | Negative | Mut | Negative | del(17p) |
| CLL011 | 42 | M | 23.9 | 1 | T | Positive | Unmut | Positive | Trisomy 12 |
| CLL015 | 56 | F | 98.6 | 1 | T | Positive | Unmut | Negative | Trisomy 12 |
| CLL030 | 60 | M | 42.5 | 1 | NT | Positive | Unmut | Negative | del(11q22.3), Trisomy 12 |
| CLL033 | 70 | M | 11.3 | 1 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL037 | 72 | F | 84.1 | 0 | NT | Positive | Mut | Negative | del(13q14.3) |
| CLL038 | 72 | M | 58 | 3 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL072 | 79 | M | 15.8 | 1 | NT | Positive | Mut | Negative | del(13q14.3) |
| CLL074 | 41 | M | 18.2 | 1 | T | Positive | Mut | Negative | del(13q14.3) |
| CLL082 | 82 | F | 22 | 4 | NT | Negative | Mut | Negative | del(11q22.3), del(13q14.3) |
| CLL085 | 66 | M | 11.3 | 4 | T | Positive | Unmut | Negative | del(11q22.3), del(13q14.3), del(17p) |
| CLL087 | 79 | M | 71.5 | 0 | NT | Positive | Mut | Negative | del(17p) |
| CLL088 | 87 | M | 137 | 4 | NT | Positive | Unmut | Negative | del(11q22.3), Trisomy 12 |
| CLL094 | 62 | F | 54.8 | 1 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL095 | 80 | F | 93 | 1 | NT | Positive | Unmut | Negative | del(13q14.3), del(17p) |
| CLL111 | 56 | F | 41.8 | 1 | NT | Positive | Mut | Negative | del(13q14.3) |
| CLL113 | 65 | F | 92 | 1 | T | Positive | Unmut | Negative | normal |
| CLL116 | 69 | M | 85 | 3 | NT | Positive | Unmut | Negative | trisomy 12 |
| CLL117 | 70 | M | 62.3 | 2 | T | Positive | Unmut | Negative | del(11q22.3) |
| CLL124 | 60 | F | 29.7 | 0 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL131 | 48 | M | 19.7 | 4 | T | Negative | Unmut | Positive | del(11q22.3) |
| CLL143 | 75 | M | 89.6 | 4 | NT | Positive | Unmut | Negative | Trisomy 12, del(13q14.3) |
| CLL153 | 53 | M | 23 | 2 | NT | Negative | Mut | Negative | trisomy 12 |
| CLL156 | 75 | F | 196 | 2 | NT | Negative | Unmut | Negative | del(13q14.3) |
| CLL158 | 54 | F | 19.4 | 0 | NT | Negative | Unmut | Negative | normal |
| CLL162 | 60 | M | 40 | 0 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL179 | 62 | M | 28 | 3 | T | Positive | Unmut | Negative | del(11q22.3), del(13q14.3) |
| CLL187 | 92 | F | 48 | 2 | NT | Negative | Mut | Negative | normal |
| CLL189 | 60 | M | 201.3 | 4 | T | Negative | Unmut | Negative | del(11q22.3), del(13q14.3) |
| CLL195 | 67 | M | 299.2 | 4 | T | Positive | Unmut | Negative | del(11q22.3), Trisomy 12, del(13q14.3), del(17p) |
| CLL208 | 60 | F | 103 | 0 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL223 | 62 | F | 75.6 | 2 | NT | Positive | Mut | Negative | del(13q14.3) |

| | | | | | | | | | |
|--------|----|---|------|---|----|----------|-------|----------|--|
| CLL230 | 66 | M | 20 | 4 | NT | Positive | Unmut | Positive | del(13q14.3), del(17p) |
| CLL232 | 77 | M | 43.3 | 1 | NT | Positive | Mut | Negative | Trisomy 12 |
| CLL235 | 66 | M | 100 | 4 | T | Positive | Unmut | Negative | del(11q22.3), Trisomy 12, del(13q14.3), del(17p) |
| CLL239 | 57 | M | 74.1 | 4 | NT | Positive | Unmut | Negative | del(17p) |
| CLL248 | 67 | F | 65 | 3 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL254 | 55 | M | 53 | 1 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL259 | 58 | M | 18 | 3 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL262 | 58 | F | 95 | 4 | NT | Negative | Unmut | Negative | normal |
| CLL266 | 35 | M | 87.5 | 4 | T | Positive | Unmut | Negative | del(13q14.3) |
| CLL271 | 48 | F | 42 | 1 | NT | Positive | Mut | Negative | del(13q14.3) |
| CLL275 | 84 | M | 88 | 4 | T | Negative | Unmut | Negative | del(11q22.3), Trisomy 12 |
| CLL285 | 61 | M | 41 | 3 | NT | Negative | Mut | Negative | normal |
| CLL282 | 64 | M | 55 | 3 | T | Negative | Unmut | Negative | Trisomy 12 |
| CLL288 | 78 | M | 67 | 4 | NT | Positive | Unmut | Negative | Trisomy 12 |
| CLL292 | 77 | F | 112 | 4 | T | Negative | Unmut | Negative | del(13q14.3), del(17p) |
| CLL307 | 62 | M | 86 | 3 | T | Positive | Unmut | Negative | del(17p) |
| CLL310 | 31 | F | 32.8 | 2 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL311 | 68 | M | 112 | 3 | T | Negative | Unmut | Negative | Trisomy 12, del(17p) |
| CLL313 | 64 | M | 70 | 4 | T | Negative | Unmut | Negative | del(13q14.3), del(17p) |
| CLL314 | 56 | M | 228 | 4 | T | N/A | Unmut | N/A | N/A |
| CLL320 | 65 | F | 168 | 4 | NT | Positive | Unmut | Negative | del(11q22.3), del(13q14.3) |
| CLL322 | 53 | F | 19 | 4 | T | Positive | Unmut | Negative | trisomy 12 |
| CLL348 | 55 | M | 220 | 4 | NT | N/A | Unmut | N/A | N/A |
| CLL360 | 47 | M | 281 | 2 | NT | Negative | Mut | Negative | del(13q14.3) |
| CLL371 | 58 | M | 141 | 4 | T | Negative | Unmut | Negative | Trisomy 12, del(17p) |

Abbreviations: CLL, chronic lymphocytic leukemia; F, female; FISH, fluorescence in situ hybridization (only abnormalities detected in $\geq 5\%$ of cells are shown); IGHV, immunoglobulin heavy chain variable region genes; M, male; Mut, mutated; N/A, not available; NT, not treated; T, treated; Unmut, unmutated; WBC, white blood cells count.

*CLL FISH panel: del(11q22.3)(ATM), trisomy 12, del(13q14.3/34), del(17p13.1) (TP53).