**Supp Table 1 Frequency of PI3K/RAS pathway mutations in *KMT2A-*driven leukemia**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Leukemia type** | ***NRAS*** | ***KRAS*** | ***PTPN11*** | ***BRAF*** | ***NF1*** | ***CBL*** | ***PIK3CA*** | ***PIK3R1*** | **Ref.** |
| ALL  Pediatric  n=13 | 0% | 0% |  |  |  |  |  |  | 27 |
| ALL  Pediatric  n=20 | 10% | 40% |  |  |  |  |  |  | 28 |
| ALL  Pediatric  n=109 | 6.4%  \* | 7.2%  \* |  | 0% |  |  |  |  | 29 |
| ALL  Pediatric (not including t4;11)  n=38 | 2.6% | 7.9% |  |  |  |  |  |  | 30 |
| ALL  Peditaric (only t4;11)  n=31 | 22.5% | 3.2% |  |  |  |  |  |  | 30 |
| ALL  Adult (only t4;11)  n=48 | 4.16% | 4.16% |  |  |  |  |  |  | 30 |
| ALL  Pediatric  n=22 (+25 validation cohort) | 18.2% | 9.1% | 4.5% |  | 4.5% |  | 6.4% | 4.3% | 31 |
| ALL  Pediatric  n=92 | 7.6% | 14.1% |  |  |  |  |  |  | 35 |
| ALL  Pediatric (t4;11)  n=36 | 38.8% | 47.2% |  |  |  |  |  |  | 32 |
| ALL  Pediatric (t4;11)  n=15 | 40% | 40% | 13.3% |  |  |  |  |  | 33 |
| ALL  Pediatric  n=33 |  |  |  |  |  | 6% |  |  | 41 |
| ALL  Pediatric (t4;11)  (n=18) |  |  |  |  |  | 0% |  |  | 39 |
| AML  Pediatric  (n=10) | 0 | 20% |  |  |  |  |  |  | 27 |
| AML  Pediatric  n=17 | 11.76% | 17.6% |  |  |  |  |  |  | 28 |
| AML  Adult  n=118 | 22% | 20.3% | 3.4% | 2.5% |  |  |  |  | 34 |
| AML  Adult  n=33 | 18.2% | 42.4% |  |  |  |  |  |  | 38 |
| AML  Adult  n=31 | 32% | 16% | 3.2% | 3.2% |  | 3.2% |  |  | 36 |
| AML  Pediatric  n=71 |  |  |  |  | 2.8% |  |  |  | 37 |
| AML  Pediatric and adult  (n=64) |  |  |  |  |  | 1.5% |  |  | 39 |

\*The frequency of *RAS* mutations is higher in the *KMT2A-AFF1* subgroup compared to the rest of *KMT2A*-rearranged ALL patients