Supplementary Materials

Whole Genome Sequencing of Spontaneously Occurring Rat Natural Killer Large Granular Lymphocyte Leukemia Identifies JAK1 Somatic Activating Mutation

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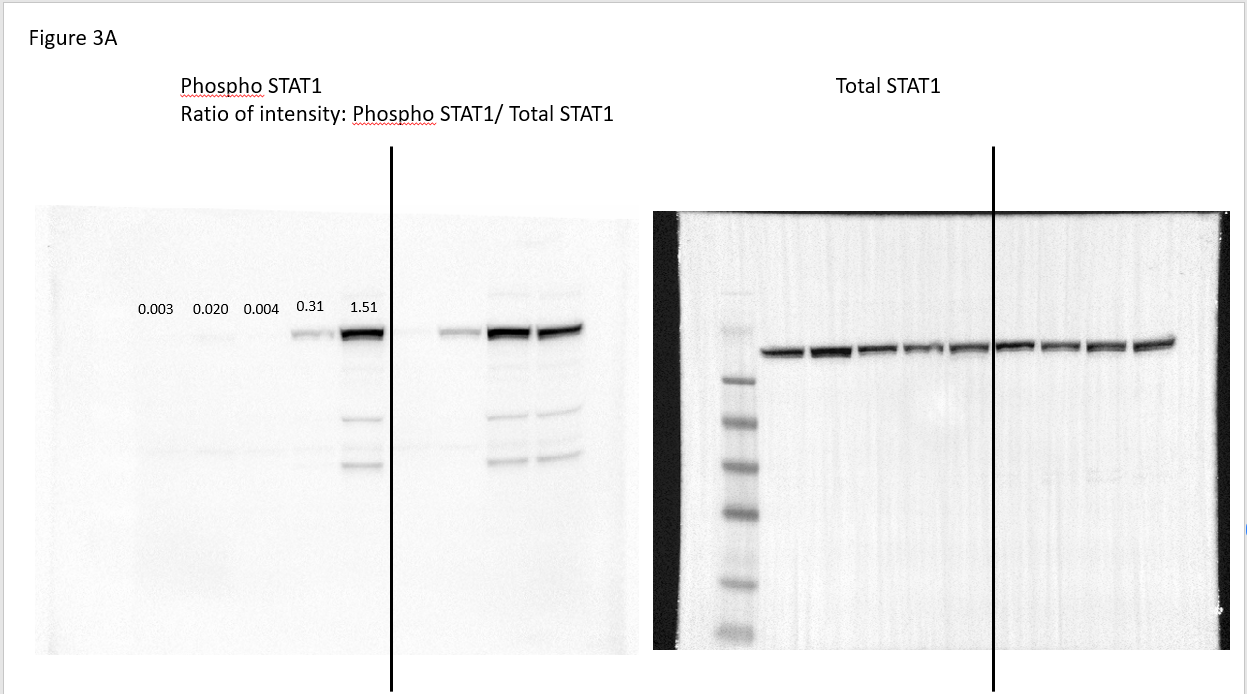
**Table S1.** Alignment statistics for the RNK16 and F344/NCrl samples.

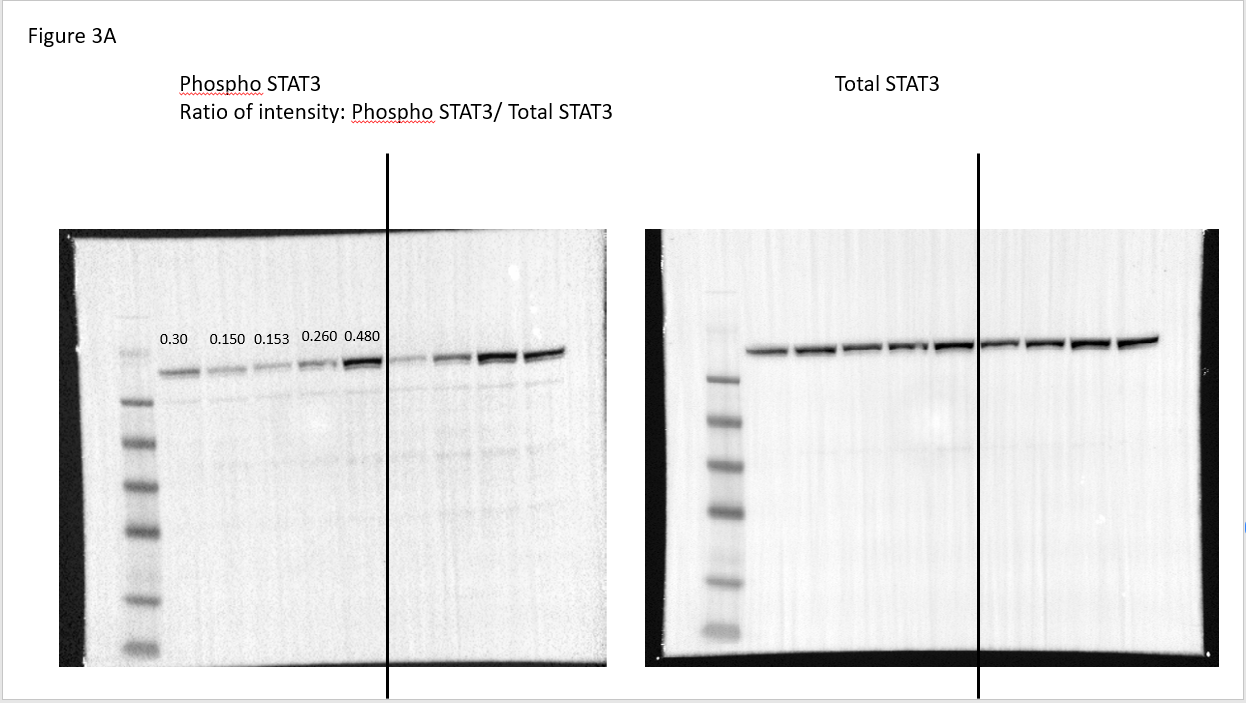
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sample** | **Reads** | **Aligned (%)** | **Duplicates (%)** | **Properly paired (%)** |
| **RNK-16** | 657,092,472 | 96.02 | 2.73 | 93.46 |
| **F344/NCrl** | 807,260,796 | 99.18 | 5.55 | 95.59 |

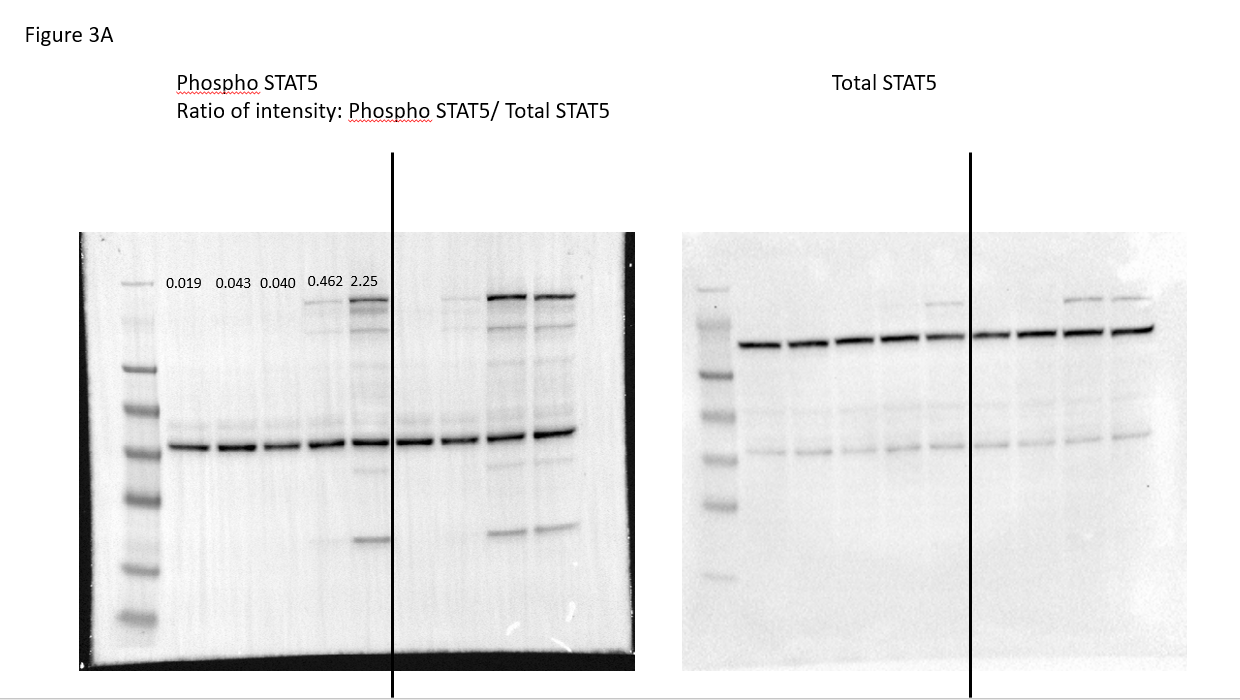
**Table S2–S3.** Please view at the excel file.

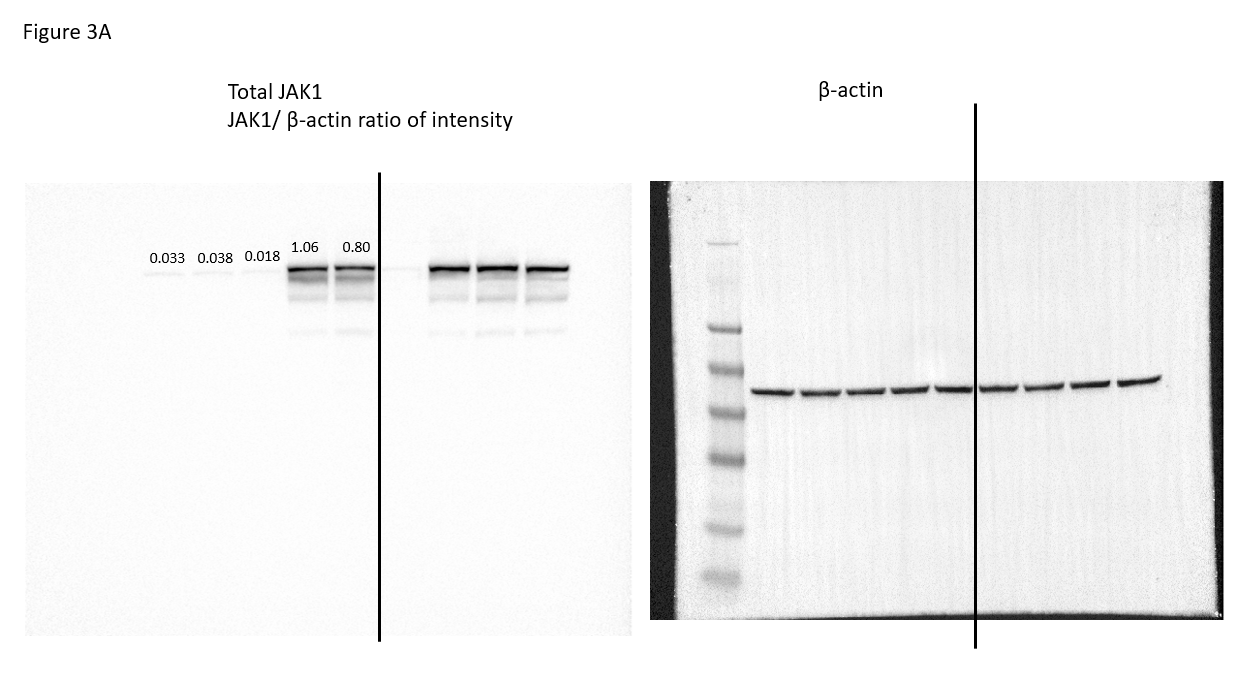
**Table S4.** Primer design for WGS validation by Sanger sequencing.

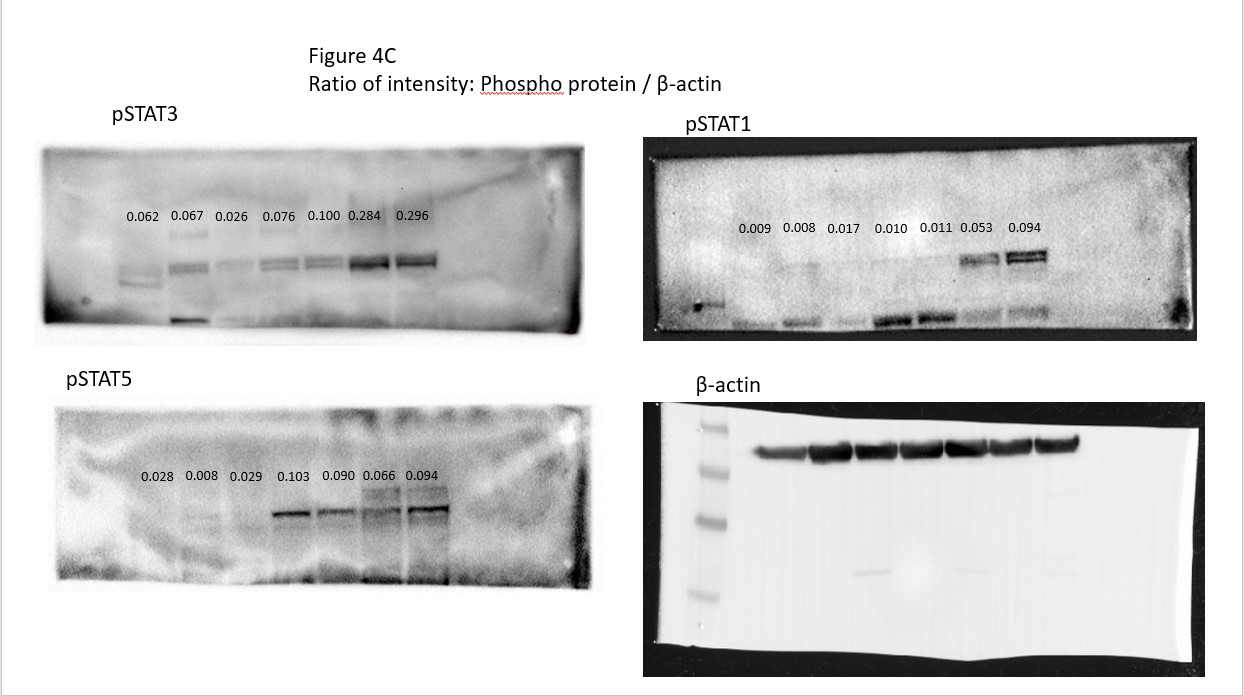
|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Primer** | **Sequencing Range** | | **Start site** | **5'- sequence-3'** | **Tm (˚C)** | **Length** | **GC Content** |
| FOR\_1 | 701 | 1400 | 654 | AGATGCAGTTGCCAGAGCTT | 60.164 | 20 | 50 |
| FOR\_2 | 1401 | 2100 | 1347 | TACAGAATGGCTGTCACGGT | 59.165 | 20 | 50 |
| FOR\_3 | 2101 | 2800 | 2056 | GCCATTGGATCTCTTCATGC | 60.579 | 20 | 50 |
| FOR\_4 | 2801 | 3500 | 2756 | GTCAAGTCCCTGAAGCCTGA | 60.386 | 20 | 55 |
| REV\_1 | 700 | 1 | 756 | CGCATCCTGGTAAGAAGATT | 56.909 | 20 | 52.2 |
| REV\_2 | 1400 | 701 | 1442 | TCCACCTCAGCACGTACATC | 59.707 | 20 | 55 |
| REV\_3 | 2100 | 1401 | 2156 | CTTCCAAGTAACTCAGGGCG | 59.869 | 20 | 55 |
| REV\_4 | 2800 | 2101 | 2844 | TTCTCGTGGTAGAGGTTCCG | 60.246 | 20 | 55 |
| brd3 | forward | 6002298 | 6002318 | AAGCAACAGATGCCTCCCTC | 60.03 | 20 | 55 |
| brd3 | reverse | 6002779 | 6002799 | CCGCTTAGCTGCTTGCTTTT | 59.76 | 20 | 50 |
| DDR | forward | 88342294 | 88342314 | CAGCATAGGGTACCAAGCCC | 60.18 | 20 | 60 |
| DDR2 | reverse | 88342867 | 88342891 | CATGAATGAGGAACAAAGTGTCCA | 59.48 | 24 | 41.67 |
| Fat1 | forward | 50398179 | 50398202 | AGCATCCTTAGCCATTAAACGGA | 60.12 | 23 | 43.48 |
| Fat1 | reverse | 50398634 | 50398655 | AGTACTCCAGCCTGTCTAGGT | 60 | 21 | 52.38 |
| Ncor2 | forward | 37032405 | 37032425 | GGTCCTGAGGTGGCTACTTG | 60 | 20 | 60 |
| Ncor2 | reverse | 37032852 | 37032872 | GATGCCAGCTCTGGATGGAC | 60 | 20 | 60 |
| Nono | forward | 71341038 | 71341061 | CCTGTAGTGGGAAGACCTTTGAG | 60.31 | 23 | 52.17 |
| Nono | reverse | 71341526 | 71341549 | ACCAGACAGACTTTAACGCACTA | 59.68 | 23 | 43.48 |
| Stag1 | forward | 109202303 | 109202326 | GGCATATGGACAGTATTTCATGG | 57.37 | 23 | 43.48 |
| Stag1 | reverse | 109202963 | 109202985 | TCCACTCTCAGCCACTTCTACA | 60.49 | 22 | 50 |
| Thrap3 (1) | forward | 144180643 | 144180666 | TCCATAAACTGACTTAGCCCTCC | 59.55 | 23 | 47.83 |
| Thrap3 (1) | reverse | 144181150 | 144181172 | TGGGAGACAACTTTCCATTCCC | 60.23 | 22 | 50 |
| Thrap3 (2) | forward | 144180693 | 144180716 | TCCATAAACTGACTTAGCCCTCC | 59.55 | 23 | 47.83 |
| Thrap3 (2) | reverse | 144181150 | 144181172 | TGGGAGACAACTTTCCATTCCC | 60.23 | 22 | 50 |
| Thrap3 (3) | forward | 144180715 | 144180738 | TCCATAAACTGACTTAGCCCTCC | 59.55 | 23 | 47.83 |
| Thrap3 (3) | reverse | 144181160 | 144181182 | TGGGAGACAACTTTCCATTCCC | 60.23 | 22 | 50 |











**Details of western blot.**

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