**Supplementary Table S1. Number of aligned reads for each TDP-43 dataset.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Human** | Reads after removing adapters | Uniquely mapped | Unique + multiple alignment |
| Healthy\_brain\_C23 | 1,821,484 | 29.64% | 41.34% |
| Healthy\_brain\_C25 | 3315218 | 62.08% | 87.31% |
| Healthy\_brain\_C30 | 2,214,683 | 40.59% | 74.99% |
| FTLD\_TDP\_brain\_F20 | 2,368,609 | 22.56% | 87.85% |
| FTLD\_TDP\_brain\_F21 | 1,565,761 | 40.76% | 85.92% |
| FTLD\_TDP\_brain\_F24 | 1,699,368 | 20.06% | 82.42% |
|  |
| **Rat** |  |  |  |
| Control | 25,626,886 | 15.41% | 84.32% |
| TDP-43 | 27,291,055 | 42.32% | 82.54% |
|  |  |  |  |
| **Mouse** |  |  |  |
| CLIP-seq (Low Mnase) | 11,422,886 | 46.13% | 74.23% |
|  |  |  |  |
| RNA-seq control (rep 1.1) 61 | 16,280,064 | 63.77% | 82.2% |  |
| RNA-seq control (rep1.2) 66 | 21,522,132 | 64.35% | 81.46% |  |
| RNA-seq control (rep2.1) 62 | 17,874,867 | 62.95% | 82.81% |  |
| RNA-seq control (rep2.2) 67 | 23,654,429 | 64.39% | 82.62% |  |
| RNA-seq control (rep2.3) 68 | 23,872,449 | 64.42% | 82.67% |
| RNA-seq control (rep3.1) 63 | 15,384,509 | 62.99% | 83.29% |
| RNA-seq control (rep3.2) 69 | 20,366,829 | 64.87% | 83.32% |
| RNA-seq control (rep3.3) 70 | 20,051,210 | 63.88% | 83.25% |
| RNA-seq control (rep4.1) 64 | 17,026,225 | 64.74% | 83% |
| RNA-seq control (rep4.2) 65 | 16,800,571 | 63.45% | 82.5% |
| RNA-seq control (rep4.3) 71 | 23,401,256 | 62.59% | 82.49% |
| RNA-seq TDP43(rep 1.1) 72 | 13,701,340 | 63.72% | 84.87% |
| RNA-seq TDP43(rep 1.2) 73 | 13,098,290 | 62.22% | 82.69% |
| RNA-seq TDP43(rep 1.3) 76 | 19,583,200 | 64.19% | 82.59% |
| RNA-seq TDP43(rep 2.1) 74 | 17,330,196 | 63.42% | 84.79% |
| RNA-seq TDP43(rep 2.2) 75 | 15,709,107 | 64.15% | 83.73% |  |
| RNA-seq TDP43(rep 2.3) 77 | 19,346,369 | 63.35% | 81.35% |  |
| RNA-seq TDP43(rep 3.1) 78 | 16,524,706 | 64.17% | 81.7% |  |
| RNA-seq TDP43(rep 3.2) 80 | 23,408,974 | 63.83% | 83.37% |
| RNA-seq TDP43(rep 4.1) 79 | 17,291,842 | 64.12% | 83.31% |
| RNA-seq TDP43(rep 4.2) 81 | 23,333,313 | 64.34% | 83.34% |