***Table S1. WHO classification and IDH mutation status of glioma cell lines applied in our study.***

|  |  |  |  |
| --- | --- | --- | --- |
| ***Cell line*** | ***Age/Gender*** | ***Tumor stage*** | ***IDH1*** |
| U-87MG | 44 yr / Female | Grade IV | Wide type |
| U-118MG | 50 yr / Male | Grade IV | Wide type |
| U-138MG | 47 yr / Male | Grade IV | Wide type |
| U-343MG | 60 yr / Male | Grade IV | Wide type |
| U-373MG | 50 yr / Male | Grade IV | Wide type |
| LNZ308 | 60 yr / Male | Grade IV | Wide type |
| A172 | 53 yr / Male | Grade IV | Wide type |

|  |  |  |  |
| --- | --- | --- | --- |
|  | All cases | LGG | GBM |
| Age |  |  |  |
|  <49 | 326 | 298 | 28 |
|  ≥49 | 335 | 212 | 123 |
|  Unknown | 0 | 0 | 0 |
|  Total | 661 | 510 | 151 |
| Gender |  |  |  |
|  Male | 352 | 254 | 98 |
|  Female | 252 | 199 | 53 |
|  Unknown | 57 | 57 | 0 |
|  Total | 661 | 510 | 151 |
| WHO Grade |  |  |  |
|  |  | I | 0 | IV | 151 |
|   |  | II | 226 |  |
|   |  | III | 240 |  |
|   |  | Unknown | 44\* |  |
|  |  | Total  | 510 | Total | 151 |
| IDH1  |  |  |  |
|  Mutant | 423 | 1p19q Co-deletion | 168 | 0 |
| Non-co-deletion | 245 | 8 |
| Unknown | 0 | 2 |
|  WT | 231 | 94 | 137 |
|  Unknown | 7 | 3 | 4 |
|  Total | 661 | 510 | 151 |

***Table S2. Clinical information of the LGG and GBM cohort included for our overall survival analysis from TCGA database.***

\*: the exact grade of the tumor was unknown, but the tumor diagnosed as Astrocytoma or Oligoastrocytoma, which were all considered to be low grade glioma (LGG). WT, wild type.