**Table S1.** Parameter reference values used in the local sensitivity analysis, for both drug-sensitive and drug-resistant cell lines.

**Part I:** For drug-sensitive cell line, *Eµ-myc/Arf-/-*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parameter | Reference value | Source | Variation range | Max |*S*| | Variation |
| *L* (μm) | 40 | Histopathological image measurements | [20−60] | 0.424 | 1.5-fold |
| (μm) | 5 | Histopathological image measurements | [2.5−7.5] | 0.456 | 0.5-fold |
| BVF | 0.031 | Histopathological image measurements | [0.0155−0.0465] | 0.499 | 0.5-fold |

**Part II:** For drug-resistant cell line, *Eµ-myc/p53-/-*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parameter | Reference value | Source | Variation range | Max |*S*| | Variation |
| *L* (μm) | 40 | Histopathological image measurements | [20−60] | 0.340 | 1.5-fold |
| (μm) | 5 | Histopathological image measurements | [2.5−7.5] | 0.363 | 0.5-fold |
| BVF | 0.045 | Histopathological image measurements | [0.0225−0.0675] | 0.452 | 0.5-fold |