**Table S7** Statistical Significance of Gene Expression Differences across Various Stages of Breast Cancer

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Comparison | Statistical significance | | | | | | |
| **VEGFA** | **BRCA1** | **RAD51** | **CCNB1** | **CHECK1** | **CDK1** | **XRCC4** |
| Normal-vs-Stage1 | 2.67260003017356E-09 | <1E-12 | <1E-12 | 1.62447832963153E-12 | 4.44089209850063E-16 | 1.62447832963153E-12 | 1.05959996332672E-09 |
| Normal-vs-Stage2 | 1.62447832963153E-12 | <1E-12 | <1E-12 | 1.62447832963153E-12 | 1.62436730732907E-12 | <1E-12 | <1E-12 |
| Normal-vs-Stage3 | 1.00799999458445E-08 | <1E-12 | <1E-12 | <1E-12 | 1.62436730732907E-12 | 1.62447832963153E-12 | 3.30719895913489E-11 |
| Normal-vs-Stage4 | 2.676000E-02 | 2.423600E-03 | 1.87416999999357E-05 | 1.49910000002418E-06 | 1.376520E-04 | 5.69360000035601E-07 | 3.841400E-03 |
| Stage1-vs-Stage2 | 1.788620E-01 | 1.819780E-03 | 4.05930000000332E-05 | 3.21680000003877E-06 | 2.799700E-02 | 2.3202999999139E-07 | 4.697000E-01 |
| Stage1-vs-Stage3 | 2.760800E-01 | 2.239500E-02 | 2.835800E-03 | 2.620500E-03 | 8.555000E-01 | 6.895300E-03 | 5.492600E-01 |
| Stage1-vs-Stage4 | 9.591400E-01 | 6.948200E-01 | 2.426600E-01 | 2.408400E-01 | 7.163200E-01 | 5.081200E-01 | 9.342100E-02 |
| Stage2-vs-Stage3 | 4.564900E-03 | 8.893200E-01 | 5.344800E-01 | 3.444400E-01 | 1.023950E-02 | 4.093600E-01 | 9.771800E-01 |
| Stage2-vs-Stage4 | 5.085400E-01 | 5.059800E-01 | 7.396600E-01 | 6.376000E-01 | 8.187800E-02 | 9.311600E-02 | 1.737770E-01 |
| Stage3-vs-Stage4 | 6.756200E-01 | 5.914000E-01 | 8.941200E-01 | 8.692400E-01 | 7.097400E-01 | 3.060400E-01 | 2.162000E-01 |