Supplemental Tables

Table S1. Yeast dataset median correlation values and outlier determination for each outlier from each of the correlation methods. Abbreviations for different measures are: IK: ICI-Kt; IKC: ICI-Kt \* Completeness; PB: Pearson Base, PN: Pearson No Zero; PL1: Pearson Log(x + 1); PL: Pearson Log(x); Kt: Kendall-tau.

|  | IK | | IKC | | PB | | PN0 | | PL1 | | PL | | Kt | | M | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation |
| Snf2.31 | X | 0.90 | X | 0.85 |  | 0.99 |  | 0.99 | X | 0.99 | X | 0.98 | X | 0.90 |  | 0.99 |
| Snf2.15 | X | 0.90 | X | 0.85 |  | 0.99 |  | 0.99 | X | 0.99 | X | 0.98 | X | 0.90 |  | 0.99 |
| Snf2.24 |  | 0.93 |  | 0.88 | X | 0.99 | X | 0.99 |  | 0.99 |  | 0.99 |  | 0.92 |  | 0.99 |
| Snf2.25 | X | 0.88 | X | 0.83 | X | 0.99 | X | 0.99 | X | 0.98 | X | 0.98 | X | 0.88 | X | 0.99 |
| Snf2.10 | X | 0.91 | X | 0.85 | X | 0.99 | X | 0.99 | X | 0.99 |  | 0.98 | X | 0.91 |  | 0.99 |
| Snf2.35 | X | 0.91 | X | 0.86 | X | 0.96 | X | 0.96 | X | 0.99 | X | 0.98 | X | 0.91 | X | 0.96 |
| Snf2.13 | X | 0.83 | X | 0.78 | X | 0.83 | X | 0.83 | X | 0.97 | X | 0.96 | X | 0.82 | X | 0.83 |
| Snf2.06 | X | 0.74 | X | 0.69 | X | 0.71 | X | 0.71 | X | 0.94 | X | 0.91 | X | 0.74 | X | 0.71 |
| WT.34 | X | 0.84 | X | 0.79 |  | 0.98 |  | 0.98 | X | 0.97 | X | 0.96 | X | 0.84 | X | 0.98 |
| WT.36 |  | 0.86 |  | 0.81 |  | 0.98 |  | 0.98 | X | 0.98 |  | 0.97 |  | 0.86 | X | 0.98 |
| WT.22 |  | 0.88 |  | 0.82 | X | 0.94 | X | 0.94 |  | 0.98 |  | 0.97 |  | 0.88 | X | 0.94 |
| WT.28 |  | 0.86 |  | 0.80 | X | 0.89 | X | 0.89 | X | 0.98 | X | 0.97 |  | 0.86 | X | 0.89 |
| WT.25 | X | 0.84 | X | 0.79 | X | 0.86 | X | 0.86 | X | 0.97 | X | 0.96 | X | 0.84 | X | 0.86 |
| WT.21 | X | 0.80 | X | 0.75 | X | 0.77 | X | 0.77 | X | 0.96 | X | 0.94 | X | 0.80 | X | 0.77 |

Table S2. Brainson dataset median correlation values and outlier determination for each outlier from each of the correlation methods. Abbreviations for different measures and data are: IK: ICI-Kt; IKC: ICI-Kt \* Completeness; PB: Pearson Base, PN: Pearson No Zero; PL1: Pearson Log(x + 1); PL: Pearson Log(x); Kt: Kendall-tau.

|  | IK | | IKC | | PB | | PN0 | | PL1 | | PL | | Kt | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation |
| 330-WT.3d |  | 0.92 |  | 0.38 |  | 0.84 |  | 0.83 |  | 0.98 | X | 0.79 |  | 0.92 |
| 1004-het.sorted | X | 0.94 | X | 0.42 |  | 0.95 |  | 0.95 | X | 0.99 | X | 0.92 | X | 0.94 |
| 783-het.sorted | X | 0.94 | X | 0.41 |  | 0.98 |  | 0.98 | X | 0.98 | X | 0.92 | X | 0.94 |
| 1173Null\_S12.total |  | 0.85 |  | 0.59 | X | 0.87 | X | 0.87 |  | 0.97 |  | 0.97 |  | 0.85 |
| 1263wt\_S1.total | X | 0.83 |  | 0.56 |  | 0.93 |  | 0.93 | X | 0.97 | X | 0.96 | X | 0.83 |

Table S3. TGCA adenocarcinoma dataset median correlation values and outlier determination for each outlier from each of the correlation methods. Abbreviations for different measures and data are: IK: ICI-Kt; IKC: ICI-Kt \* Completeness; PB: Pearson Base, PN: Pearson No Zero; PL1: Pearson Log(x + 1); PL: Pearson Log(x); Kt: Kendall-tau.

|  | IK | | IKC | | PB | | PN0 | | PL1 | | PL | | Kt | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation | Outlier | Correlation |
| A8F881DB-1BC3-4354-9FAB-BC223B7410A7 |  | 0.90 |  | 0.51 |  | 0.88 |  | 0.88 |  | 0.98 | X | 0.95 |  | 0.86 |
| 290E4F96-F943-40FC-90B8-B80F85FB4C7C |  | 0.90 |  | 0.51 |  | 0.88 |  | 0.88 |  | 0.97 | X | 0.95 |  | 0.86 |
| A1861D15-4A02-4458-9A2B-F0BEE3E046DE |  | 0.89 |  | 0.51 |  | 0.86 |  | 0.86 |  | 0.97 | X | 0.95 |  | 0.86 |
| 47C0EF2E-C8FC-4F5E-BAFB-AE7C7C632756 |  | 0.89 | X | 0.50 |  | 0.92 |  | 0.92 |  | 0.97 | X | 0.95 | X | 0.86 |
| F9BDF8B5-A533-4DDC-ACF7-3C9F0B5884FD |  | 0.85 |  | 0.49 | X | 0.13 | X | 0.12 |  | 0.95 |  | 0.90 |  | 0.82 |
| FAE43DA9-4D31-4879-B2DA-F981B8422FC9 |  | 0.83 | X | 0.45 |  | 0.67 |  | 0.66 |  | 0.94 |  | 0.89 |  | 0.80 |
| 77188159-D5DD-4256-B06A-A052E6991E53 | X | 0.81 |  | 0.46 |  | 0.54 |  | 0.54 | X | 0.92 | X | 0.87 | X | 0.78 |
| 2D98EF29-6A95-4864-A0C8-71D9C4E46160 | X | 0.81 | X | 0.44 |  | 0.48 |  | 0.47 | X | 0.92 | X | 0.87 | X | 0.78 |
| CBC653F9-7B87-48F6-945D-700E98E0CA5C | X | 0.80 | X | 0.43 | X | 0.11 | X | 0.10 | X | 0.92 | X | 0.86 | X | 0.77 |
| 4E7362F4-1848-403C-8D85-D62318B8066C | X | 0.76 | X | 0.44 | X | 0.04 | X | 0.04 | X | 0.90 | X | 0.85 | X | 0.73 |
| 63721EC4-C3FD-40AF-9999-23106EC182CB | X | 0.68 | X | 0.38 | X | 0.10 | X | 0.10 | X | 0.85 | X | 0.77 | X | 0.65 |
| 8105B7FC-24F3-4AC5-AD19-05905A4E7DA4 | X | 0.68 | X | 0.40 | X | 0.15 | X | 0.15 | X | 0.84 | X | 0.76 | X | 0.66 |