**Table S5**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | With BG subtraction | | | | | |
| VCA |  | **EM 1** | **EM 2** | **EM 3** | **EM 4** | **EM 5** |
| EM 1 | VCA | 1.000 |  |  |  |  |
| NMF | 0.997 | 0.859 | 0.725 | 0.939 | 0.525 |
| MCR no PCA | 0.996 | 0.807 | 0.742 | 0.986 | 0.880 |
| MCR with PCA | 0.998 | 0.799 | 0.717 | 0.503 | 0.881 |
| EM 2 | VCA |  | 1 |  |  |  |
| NMF | 0.908 | 0.994 | 0.817 | 0.911 | 0.348 |
| MCR no PCA | 0.908 | 0.981 | 0.885 | 0.856 | 0.908 |
| MCR with PCA | 0.897 | 0.977 | 0.868 | 0.641 | 0.914 |
| EM 3 | VCA |  |  | 1.000 |  |  |
| NMF | 0.927 | 0.960 | 0.892 | 0.977 | 0.364 |
| MCR no PCA | 0.930 | 0.923 | 0.923 | 0.969 | 0.864 |
| MCR with PCA | 0.913 | 0.913 | 0.887 | 0.704 | 0.938 |
| EM 4 | VCA |  |  |  | 1.000 |  |
| NMF | 0.998 | 0.874 | 0.722 | 0.953 | 0.513 |
| MCR no PCA | 0.998 | 0.819 | 0.745 | 0.914 | 0.975 |
| MCR with PCA | 0.995 | 0.810 | 0.714 | 0.507 | 0.912 |
| EM 5 | VCA |  |  |  |  | 1.000 |
| NMF | 0.523 | 0.506 | 0.338 | 0.428 | 0.651 |
| MCR no PCA | 0.514 | 0.508 | 0.409 | 0.445 | 0.530 |
| MCR with PCA | 0.536 | 0.527 | 0.499 | -0.070 | 0.391 |