Table S3: Brightness and photostability of green fluorescent proteins

|  |  |  |  |
| --- | --- | --- | --- |
|  | Widefield Brightness | Spinning Disk Brightness | Photobleaching to 50% Initial Intensity |
|  | Mean | SE | P | Mean | SE | Intensity | SE | Time | SE |
| EGFP | 1.00 | 0 |  | 1.00 | 0 | 1.00 | 0.00 | 1.00 | 0.00 |
| GFPγ | 1.55 | 0.09 | 0.01 | 1.67 | 0.37 | 0.40 | 0.05 | 0.23 | 0.03 |
| Clover | 1.13 | 0.07 | 0.07 | 1.06 | 0.23 | 0.21 | 0.03 | 0.22 | 0.04 |
| Emerald | 1.09 | 0.22 | 0.21 | 1.11 | 0.18 | 0.53 | 0.03 | 0.40 | 0.03 |
| MaxGFP | 0.81 | 0.12 | 0.76 | 0.75 | 0.16 | 0.35 | 0.02 | 0.57 | 0.02 |
| Superfolder GFP | 0.49 | 0.09 | 0.98 | 0.71 | 0.12 | 0.09 | 0.01 | 0.12 | 0.02 |
| Wasabi | 0.30 | 0.03 | 0.99 | 0.42 | 0.17 | 0.04 | 0.01 | 0.11 | 0.01 |

All values are measured relative to EGFP. SE is the standard error. P-values measure the likelihood that the true value is not greater than GFP. Photobleaching intensity is the mean integrated intensity recorded from the fluorescent protein during bleaching to 50% of its initial intensity. Photobleaching time is the mean time required for the protein to bleach to 50% of its initial intensity.