**Supplementary Table S2. The Significance analysis related to data in Fig. 3b and Extended Data Fig. 3a,c.**

| Student's *t*-test (unpaired two-tailed) | Summary | Adjusted *P* Value |
|---|---|---|
| PCC1 - 0 µM | | |
| CTRL vs. Bleomycin-induced senescence (TIS) | ^ | 0.7599 |
| CTRL vs. Replication-induced senescence (RS) | ^ | > 0.9999 |
| CTRL vs. Oncogene-induced senescence (OIS) | ^ | 0.9996 |
| PCC1 - 10 µM | | |
| CTRL vs. Bleomycin-induced senescence (TIS) | ^ | 0.1175 |
| CTRL vs. Replication-induced senescence (RS) | ^ | 0.5367 |
| CTRL vs. Oncogene-induced senescence (OIS) | ^ | 0.6604 |
| PCC1 - 25 µM | | |
| CTRL vs. Bleomycin-induced senescence (TIS) | ^ | 0.1125 |
| CTRL vs. Replication-induced senescence (RS) | ^ | 0.0913 |
| CTRL vs. Oncogene-induced senescence (OIS) | ^ | 0.4631 |
| PCC1 - 50 µM | | |
| CTRL vs. Bleomycin-induced senescence (TIS) | ** | 0.0079 |
| CTRL vs. Replication-induced senescence (RS) | ** | 0.0012 |
| CTRL vs. Oncogene-induced senescence (OIS) | ** | 0.0023 |
| PCC1 - 100 µM | | |
| CTRL vs. Bleomycin-induced senescence (TIS) | **** | < 0.0001 |
| CTRL vs. Replication-induced senescence (RS) | **** | < 0.0001 |
| CTRL vs. Oncogene-induced senescence (OIS) | **** | < 0.0001 |
| PCC1 - 200 µM | | |
| CTRL vs. Bleomycin-induced senescence (TIS) | **** | < 0.0001 |
| CTRL vs. Replication-induced senescence (RS) | **** | < 0.0001 |
| CTRL vs. Oncogene-induced senescence (OIS) | **** | < 0.0001 |