**Table S4. Effects of paclitaxel on Tax 11-6 microtubule dynamics**

| | Paclitaxel (nM) | | | | |
|---|---|---|---|---|---|
| Parameter | 0 | 1 | 3 | 10 | 50 |
| Growth | | | | | |
| Rate (μm/min) | 13.1 ± 0.9 (82) | 12.7 ± 1.4 | 11.2 ± 0.7 | 11.9 ± 1.2 | 10.0 ± 0.7 (63) |
| Duration (sec) | 6.8 ± 0.4 (57) | 7.7 ± 0.7 | 6.3 ± 0.3 | 6.0 ± 0.4 | 5.9 ± 0.3 (49) |
| Distance (μm) | 1.5 ± 0.1 (45) | 1.6 ± 0.2 | 1.2 ± 0.1 | 1.3 ± 0.2 | 1.0 ± 0.1 (30) |
| Shortening | | | | | |
| Rate (μm/min) | 17.0 ± 1.2 (59) | 19.6 ± 2.8 | 16.4 ± 1.4 | 12.4 ± 1.0* | 12.1 ± 1.4* (42) |
| Duration (sec) | 8.4 ± 0.7 (77) | 9.1 ± 1.5 | 6.6 ± 0.4 | 6.6 ± 0.7 | 5.9 ± 0.3* (54) |
| Distance (μm) | 2.6 ± 0.4 (51) | 3.2 ± 0.8 | 1.9 ± 0.3 | 1.4 ± 0.2* | 1.2 ± 0.1* (24) |
| Frequency ($min^{-1}$) | | | | | |
| Catastrophe | 2.3 ± 0.3 (153) | 2.2 ± 0.4 | 1.8 ± 0.3 | 1.6 ± 0.3 | 1.7 ± 0.3 (113) |
| Rescue | 8.2 ± 0.5 (126) | 8.0 ± 1.0 | 7.9 ± 1.0 | 9.0 ± 0.9 | 10.3 ± 0.6* (158) |
| Percentage of time | | | | | |
| Growing | 19.2 ± 1.8 (63) | 24.5 ± 3.7 | 14.4 ± 1.9 | 12.6 ± 2.7* | 17.1 ± 2.3 (56) |
| Shortening | 20.8 ± 2.3 (102) | 21.9 ± 4.49 | 15.6 ± 2.0 | 13.3 ± 2.6* | 14.3 ± 2.7 (70) |
| Pausing | 60.0 ± 3.1 (122) | 54.0 ± 5.6 | 70.0 ± 3.6* | 74.1 ± 4.8* | 68.6 ± 4.3 (140) |
| Dynamicity (μm/min) | 5.7 ± 0.6 (65) | 6.8 ± 1.2 | 4.4 ± 0.7 | 3.1 ± 0.7* | 2.7 ± 0.4* (31) |
| Microtubules measured | 30 | 15 | 15 | 15 | 13 |

Values represent the mean ± standard error.
Numbers in parentheses are percent of control (untreated wild-type cells).
Catastrophe: the transition from either growth or pause phase to shortening phase.
Rescue: the transition from shortening phase to either growth or pause phase.
Dynamicity: the total length change of individual microtubule during life history.
* $p < 0.05$ compared to wild-type cells at 0 concentration of paclitaxel.