Table S3: Model Parameter Comparison (Maurer et al 2014)

|  |  |  |  |
| --- | --- | --- | --- |
| Model Parameter | Maurer et al 2014 Model | Current Study Model | Comments |
| EB1 on-rate (*kon, edge*) | N/A | .0016-0.0023 s-1 nM-1site-1 | In current study: On rate to protofilament edges, **per available edge site** (70-fold increased from lattice sites per Reid et al 2019) |
| EB1 on-rate (*kon, lattice*) | ~0.12 s-1 nM-1 | ~0.09-0.18 s-1 nM-1  *[scaled up from*  *2.3x10-5 s-1 nM-1site-1*  *using mean ± sd of MT length in simulation*] | In current study: On rate to closed lattice site, **per available lattice site** |
| EB1 off-rate (*koff*) | 3.4±0.2 s-1 | 1.7-3.3 s-1 | In current study: off-rate from GDP-tubulin closed-lattice sites |
| Tubulin Maturation Rate to allow EB1 binding (*k1*) | 1.14 - 10 s-1 | N/A | Maturation from EB1-excluded zone to EB1-binding zone. **No EB1 exclusion zone in current study** |
| Tubulin Maturation Rate to allow EB1 unbinding (*k2* or *khydrolysis*) | 0.24 – 0.6 s-1 | 0.55 s-1 | Maurer Model: maturation from EB1 binding zone to EB1 unbinding zone. **In both studies, this is equivalent to the GTP-tubulin hydrolysis rate.** |