**S2a. Values taken from literature**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Meaning** | **Source** | **Value** |
| $$g\_{leak}$$ | Leak conductance | Fernandos and White, J. Neuro. (2010) | 10 nS |
| $$E\_{exc}$$ | Excitatory reversal | Calculated (**Methods**) | 0 mV |
| $$E\_{inh}$$ | Inhibitory reversal | Calculated (**Methods**) | -70 mV |
| $$E\_{leak}$$ | Leak reversal | Fernandos and White, J. Neuro. (2010) | -65 mV |
| $$C\_{m}$$ | Membrane capacitance | neuroelectro.org | 100 pF |

**S2b. Values extracted by fitting data**

|  |  |  |
| --- | --- | --- |
| **Variable** | **Meaning** | **Range (units)** |
| $$t$$ | Time | 0-100 ms |
| $$g\_{exc}$$ | Excitatory max conductance | 0 - 5 nS |
| $$τ\_{exc}^{rise}$$ | Excitatory Rise | 7 ms |
| $$τ\_{exc}^{decay}$$ | Excitatory Fall | 16 ms |
|  $δ\_{exc}^{onset}$  | Excitatory onset time | 0 ms |
| $$P$$ | I/E ratio | 0 - 5 |
| $$g\_{inh}$$ | Inhibitory max conductance | $P$ x $g\_{exc}$ |
| $$τ\_{inh}^{rise}$$ | Inhibitory Rise | 13 ms |
| $$τ\_{inh}^{decay}$$ | Inhibitory Fall | 27 ms |
| $$δ\_{inh}^{onset}$$ | Inhibitory onset time | 2-15 ms |