

Parameter	Value	Units	Description
$K$	280	-	Number of units in reservoir
$g$	1.5	$\mu S$	Gain parameter
$M$	1120	-	Number of units in sparse pattern net
$\theta_m$	7.5	Hz	Threshold for columnar to reservoir excitation
$\theta_o$	0.1	-	Threshold for reservoir to sparse net excitation
$Q_{max}$	.15	$\mu S$	Rate of Poisson stimulus pulse
$\tau_{net}$	100	ms	Time constant for units in reservoir
$\tau_u, \tau_{ui}$	40,10	ms	Excitatory and inhibitory time constants, rate-based network
$u_c$	2	-	Upper threshold, rate-based transfer function
$\theta$	0	-	Lower threshold, rate-based transfer function
$v$	2	-	Scaling parameter, rate-based transfer function

**Supplementary File 2. Table of Reservoir, Sparse Net, and Rate-Based Model Parameters.**