

cG-Gated channels

	Parameter	Value/measure	Source	Species
ch1	Hill coefficient	2.8	Taylor & Baylor, 1995	salamander
ch2	K_d	17.0 μM	Pugh inactivation model	macaque
ch3	Salamander channel density	650 $\mu\text{m}^2/\text{s}$	Karpen et al., 1992	salamander
ch4	Salamander OS diameter	11.0 μm	Pugh & Lamb, 1993, Fig. 1	salamander
ch5	Macaque/salamander OS diameter	5.5	<i>Calculated: os2, ch4</i>	various
ch6	Channel density	3575 $\mu\text{m}^2/\text{s}$	<i>Calculated: ch3, ch5</i>	macaque
ch7	Channel/unit OS area	629 channels	<i>Calculated: os9, ch6</i>	various
ch8	Channel current	-3.0 fA	Yau & Baylor, 1989	amphibian, reptile
ch9	Total # channels	5.62×10^5 channels	<i>Calculated: os6, ch6</i>	macaque
ch10	Channel concentrations/cytoplasm	23.7 μM	<i>Calculated: os13, ch9</i>	macaque
ch11	Channel/dark current	1.13×10^4 channels	<i>Calculated: ch8, cv1</i>	various
ch12	Channel/photon	-233 channels	<i>Calculated: ch8, cv3</i>	various
ch13	#PDE/#channels	5	<i>Calculated: d3, ch9</i>	various
ch14	Fraction open in dark	2.02 %	<i>Calculated: ch9, ch11</i>	various
ch16	Fraction open 1 photon peak	1.98 %	<i>Calculated: ch14, cv3</i>	various
ch16	Free cG in dark	4.25 μM	<i>Calculated: ch1, ch2, ch14</i>	various
ch17	cG at 1 photon peak	4.22 μM	<i>Calculated: ch1, ch2, ch16</i>	various
ch18	Change in cG at 1 photon peak	-0.0321 μM	<i>Calculated: ch16, ch17</i>	various
ch19	Change in cG at 1 photon peak	-1569 molecules	<i>Calculated: os13, ch18, ch23</i>	various
ch20	Change in cG at 1 photon peak	-0.76 %	<i>Calculated: ch16, ch18</i>	various
ch21	Microscopic K_d	18.0 μM	Karpen et al., 1988, p. 1290	salamander
ch22	Bound cG in dark	4.5 μM	<i>Calculated: ch10, ch16, ch21</i>	various
ch23	Channel buffer power	2.1	<i>Calculated: ch16, ch22</i>	various
	Fraction open in dark	1 %	Yau & Nakatani, 1985	toad
	Fraction open in dark	1 %	Nakatani & Yau, 1988	toad
	Fraction open in dark	1-2 %	Yau and Baylor, 1989	toad
	Fraction open in dark	0.7-3 %	Pugh & Lamb, 1990	salamander