

# Impact of sodium channel inactivation on spike threshold dynamics and synaptic integration

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**Table S1** - Properties of Na channels of central neurons *in situ*.

Reference	V <sub>a</sub> (mV)	k <sub>a</sub> (mV)	V <sub>i</sub> (mV)	k <sub>i</sub> (mV)	k <sub>a</sub> /k <sub>i</sub>	Area	Cellular type	Developmental stage	Recording site	Animal
Huguenard et al. (1988) <sup>1</sup>	-30,6	5,1	-65	6,2	0,82	neocortex	pyramidal	mature	soma	rat
	-39,4	5,4	-62,6	5,9	0,92			young		
	-30,4	5,6	-68,4	5,7	0,98			immature		
	-34,1	5,4	-62	5,9	0,92		putative interneuron	mature		
	-35,2	5,6	-66,4	5,6	1,00			young		
	-26	5,5	-64,4	5,5	1,00			immature		
Martina and Jonas (1997) <sup>2</sup>	-8,82	9	-58,3	6,7	1,34	hippocampus - CA1	basket	P9 - 16	soma	rat
	-7,2	9,3	-62,9	10,7	0,87		pyramidal			
Colbert and Pan (2002) <sup>3</sup>	-31,6	6,8	-66	5,3	1,28	neocortex - layer 5	pyramidal	P14 - 24	soma	rat
	-38,4	6	-69	5,3	1,13				soma	
	-30,1	8,1	-66	5,9	1,37				axon initial segment	
Baranauskas and Martina (2006) <sup>4</sup>	-33,8	6,4	-72	6,8	0,94	prefrontal cortex	pyramidal	4 - 7 weeks old	soma	rat
Mercer et al. (2007) <sup>5</sup>	-28,5	5,7	-53,7	5	1,14	basal ganglia - globus pallidus		P16 - 22		mice
Kole et al. (2008) <sup>6</sup>	-21,7	6,5	-54,5	8,9	0,73	somatosensory cortex	pyramidal	2 - 4 weeks	soma	rat
	-31,1	6,5	-60,8	6,9	0,94				axon initial segment	
	-29,2	6,1	-58,7	5,4	1,13				axon initial segment depolymerized	
Royeck et al. (2008) <sup>7</sup>	-29,8	5,9	-50	4	1,48	hippocampus - CA1	pyramidal	P17 - 21	soma	mice
	-25	5,4	-50	4	1,35					mutant mice (deficient for Nav1.6 subunits)
Hu et al. (2009) <sup>8</sup>	-29,7	5,8	-67	7,1	0,82	prefrontal cortex	pyramidal	P16 - 20	soma	rat
	-43,9	5,7	-80	5,4	1,06				axon initial segment	
Kuba and Ohmori (2009) <sup>9</sup>	-39,5	4,4	-57,5	4,8	0,92	nucleus magnocellularis	high/middle-frequency auditory relay	P3 - 8	soma	chick
	-38,6	4,1	-57,9	4,6	0,89		low-frequency auditory relay			
Scott et al. (2010) <sup>10</sup>	-30,9	7,5	-77,4	7,4	1,01	medial superior olive	principal	P16 - 19	soma	mongolian gerbil
<b>Mean</b>	<b>-30,2</b>	<b>6,2</b>	<b>-63,1</b>	<b>6</b>	<b>1,05</b>					

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