The Journal of General Physiology

Molecular and biophysical basis of glutamate and trace metal modulation of voltage-gated $Ca_v2.3$ calcium channels

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Volume 139, No. 3, March 5, 2012. Pages 219–234.

In the Results, in the second full paragraph on page 223 ("It was shown that Tricine..."), the sentence "This suggests that excitatory amino acids..." should not have included the word "excitatory." The correct sentence is "This suggests that amino acids and Tricine could exert their effect on $Ca_v2.3$ by chelating trace amounts of Zn^{2+} and/or Cu^{2+}, which commonly reside in normal bath solutions (Kay, 2004)."

In addition, the footnote b for Table 1 gave an incorrect p-value of $P < 0.5$. The correct p-value is $P < 0.05$. The table and corrected footnote are below.

The html and pdf versions have been corrected.

TABLE 1

Biophysical properties

Solution	Activation				Inactivation kinetics						
$Ca_v2.3$ WT	$P_{Ca(max)}$ ± SEM	$V_{1/2}$ ± SEM	k ± SEM	*n*	$V_{1/2}$ ± SEM	k ± SEM	*n*	A_f ± SEM	τ_f ± SEM	A_s ± SEM	τ_s ± SEM	*n*
HEPES	0.011 ± 0.003	1.5 ± 1.0[a]	7.2 ± 0.1[a]	8	−36.1 ± 1.1[b]	8.9 ± 0.2	8	−0.24 ± 0.05[b]	0.17 ± 0.02	−0.59 ± 0.04	1.5 ± 0.2	6
Tricine	0.010 ± 0.002	−15.6 ± 1.8	5.3 ± 0.2	12	−40.2 ± 1.2	8.2 ± 0.3	11	−0.38 ± 0.03	0.13 ± 0.01	−0.44 ± 0.02	1.2 ± 0.1	6
Zn 7 µM	0.005 ± 0.001	−2.4 ± 2.9[a]	7.1± 0.1[a]	4	−30.4 ± 1.8[a]	9.8 ± 0.5	6	−0.14 ± 0.01[a]	0.33 ± 0.08	−0.52 ± 0.06	2.4 ± 0.6	6
Cu 205 nM	0.007 ± 0.002	2.9 ± 1.2[a]	7.4± 0.1[a]	6	−26.8 ± 1.2[a]	9.7 ± 0.8	6	−0.18 ± 0.04[a]	0.21 ± 0.08	−0.48 ± 0.04	3.1 ± 0.4[b]	6
H179E/H181A												
HEPES	0.010 ± 0.002	−12.7 ± 1.0	5.0 ± 0.2	7	−42.9 ± 1.8	9.1 ± 0.4	6	−0.32 ± 0.04	0.14 ± 0.02	−0.59 ± 0.04	1.3 ± 0.1	5
Tricine	0.010 ± 0.001	−12.1 ± 1.1	5.2 ± 0.2	13	−41.2 ± 1.3	8.4 ± 0.2	8	−0.34 ± 0.03	0.14 ± 0.01	−0.55 ± 0.02	1.2 ± 0.1	5
Zn 7 µM	0.008 ± 0.002	−9.4 ± 0.9	6.0 ± 0.3	5	−36.0 ± 2.4	9.2 ± 0.8	4	−0.31 ± 0.04	0.23 ± 0.11	−0.65 ± 0.17	2.8 ± 1.1	3
Cu 205 nM	0.009 ± 0.002	−8.6 ± 1.9	5.6 ± 0.2	8	−37.2 ± 1.1	8.0 ± 0.4	6	−0.33 ± 0.02	0.20 ± 0.06	−0.64 ± 0.12	2.4 ± 0.7	5

All parameters were calculated for each cell and then averaged. Statistically significant differences are noted with footnotes and are by one-way ANOVA, compared to the values obtained in Tricine:

[a]$P < 0.001$.

[b]$P < 0.05$.