International Journal of
Molecular Sciences

MDPI

Supplementary Information

Expression Analysis of Zinc Transporters in Nervous Tissue Cells Reveals Neuronal and Synaptic Localization of ZIP4

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Supplementary table S1: A) In rat lysate from rat hippocampi, we found the expression of ZnT transporters relevant from the statistical analysis (one-way ANOVA: p=0.0049). Post-hoc tests (Tukey's multiple comparisons test), underlined the following results: *ZnT1* vs. *ZnT2* (p=0.0218), *ZnT2* vs. *ZnT4* (p=0.0188), *ZnT2* vs. *ZnT7* (p=0.0468), *ZnT2* vs. *ZnT9* (p=0.0061). The Zip transporters expressed in the lysate of hippocampal lysates were not statistically significant (one-way ANOVA: p=0.0576). **B)** In C6 Glioblastoma cell line, on mRNA level, we detected the expression of the following ZnTs, with significant differences among means after ANOVA and post-hoc tests: *ZnT1* vs. *ZnT9* (p<0.0001), *ZnT4* vs. *ZnT9* (p<0.0001), *ZnT5* vs. *ZnT9* (p<0.0001), *ZnT6* vs. *ZnT9* (p<0.0001), *ZnT7* vs. *ZnT9* (p<0.0001). The Zips significantly expressed in C6 Glioblastoma were: *Zip1* vs. *Zip9* (p<0.0001), *Zip1* vs. *Zip10* (p=0.0183), *Zip1* vs. *Zip13* (p<0.0001), *Zip6* vs. *Zip9* (p<0.0001), *Zip6* vs. *Zip13* (p=0.0305), *Zip9* vs. *Zip10* (p=0.0006). In the DI TNC1 Astrocytes cell line we found the expression of the following ZnTs statistically significant different (ANOVA: p<0.0001, Tukey's multiple comparisons test): *ZnT1* vs. *ZnT7* (p<0.0001), *ZnT1* vs. *ZnT9* (p<0.0001), *ZnT4* vs. *ZnT6* (p=0.0047), *ZnT4* vs. *ZnT7* (p=0.0133), *ZnT4* vs. *ZnT9* (p<0.0001), *ZnT5* vs. *ZnT7* (p=0.0001), *ZnT5* vs. *ZnT9* (p<0.0001), *ZnT6* vs. *ZnT7* (p<0.0001), *ZnT6* vs. *ZnT9* (p<0.0001), *ZnT7* vs. *ZnT9* (p<0.0001). The following levels of expression of several Zip transporters were significantly different (Tukey's multiple comparisons test): *Zip1* vs. *Zip8* (p<0.0001), *Zip1* vs. *Zip9* (p<0.0001), *Zip1* vs. *Zip10* (p<0.0001), *Zip1* vs. *Zip11* (p<0.0001), *Zip1* vs. *Zip13* (p<0.0001), *Zip6* vs. *Zip8* (p<0.0001), *Zip6* vs. *Zip9* (p<0.0001), *Zip6* vs. *Zip10* (p=0.0048), *Zip6* vs. *Zip11* (p<0.0001), *Zip6* vs. *Zip13* (p=0.0019), *Zip8* vs. *Zip11* (p=0.0134), *Zip10* vs. *Zip11* (p<0.0001), *Zip11* vs. *Zip13* (p<0.0001). **C)** In primary hippocampal neurons, ANOVA and post-hoc Tukey's multiple comparisons reveled significant differences: *ZnT1* VS. *ZnT7* (p<0.0001), *ZnT1* vs. *ZnT10* (p=0.0083), *ZnT2* vs. *ZnT7* (p<0.0001), *ZnT3* vs. *ZnT7* p<0.0001), *ZnT3* vs. *ZnT10* (p=0.0051), *ZnT4* vs. *ZnT7* (p<0.0001), *ZnT4* vs. *ZnT10* (p=0.0051), *ZnT5* vs. *ZnT7* (p<0.0001), *ZnT5* vs. *ZnT10* (p<0.0055), *ZnT6* vs. *ZnT7* (p<0.0001), *ZnT7* vs. *ZnT8* (p<0.0001), *ZnT7* vs. *ZnT10* (p=0.0005), *ZnT8* vs. *ZnT10* (p=0.0050). Regarding the Zip solute carrier family, we detected the following significant differences: *Zip1* vs. *Zip2* (p=0.0076), *Zip1* vs. *Zip4* (p=0.0035), *Zip2* vs. *Zip4* (p<0.0001).