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前脑特异性过表达NR2B基因对小鼠社会互动能力的影响

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Effect of forebrain NR2B overexpression on social interactions in transgenic mice

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- 摘要
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摘要 将2~3月龄实验小鼠分为前脑NR2B过表达的转基因雌性和雄性小鼠以及同窝野生对照雌性和雄性小鼠, 进行社会互动能力测试, 包括新环境中的社会互动能力测试、社会交往能力和社会新奇偏好测试. 结果显示, 前脑NR2B表达量的提高, 对NR2B转基因小鼠在新环境中的社会互动能力和社会新奇偏好无影响. 但是却使得雌性NR2B转基因小鼠的社会交往能力提高, 但是对雄性NR2B转基因小鼠却无明显影响. 这表明, NR2B在前脑过量表达会提高雌性小鼠的社会交往能力, 但对于雄性小鼠社会行为没有明显影响.

关键词: NR2B 转基因小鼠 社会互动 社会交往能力 社会新奇偏好

Abstract: Male and female NR2B transgenic mice and their littermate controls were subjected to the social interaction test in a novel environment, sociability test and social novelty test. There was no significant difference in social interaction test in a novel environment and social novelty test among these four groups. However, compared with wild type mice, female but not male NR2B transgenic mice exhibited improvement in sociability. These results suggest that NR2B overexpression in the forebrain can improve sociability of female mice, while having no significant effect on social behaviors in male mice.

Key words: NR2B transgenic mice social interaction sociability social novelty

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