

(第3号様式)

学 位 論 文 要 旨

氏 名 李璇

論 文 名 カイニン酸投与後のプロサポシンとその受容体の変化

学位論文要旨

書き方

(和文 2,000 字又は英文 800 語以内)

(日本人の大学院生は、和文で記載)

(標準書式：日本工業規格 A 4，11 ポイント，1 行 42 字，1 ページ 40 行)

Prosaposin (PSAP), a highly conserved glycoprotein, is a precursor of saposins A–D. Accumulating evidence suggests PSAP is a neurotrophic factor that induces differentiation and prevents death in a variety of neuronal cells through the active region within the saposin C domain both *in vivo* and *in vitro*. Recently, GPR37 and GPR37L1 were recognized as PSAP receptors. In this study, we examined the alteration in expression of PSAP and its receptors in the cerebellum using rats injected with kainic acid (KA). The results show that PSAP was expressed in the cytoplasm of Purkinje cells and interneurons in the molecular layer, and PSAP expression in both types of neurons was markedly enhanced following KA treatment. Immunoblotting revealed that the expression of GPR37 was diminished significantly three days after KA injection compared with control rats; however, no changes were observed through immunostaining. No discernable changes were found in GPR37L1. These findings may help us to understand the role of PSAP and the GPR37 and GPR37L1 receptors in alleviating the neural damage caused by KA.

氏名 李璇 _____

キーワード (3~5)	prosaposin GPR37 GPR37L1 Kainic acid
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