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Suppression of glutamate-induced neural cell death by electrolyzed-reduced water

T. Kashiwagi, T. Hamasaki, M. Takaki, S. Kabayama, K. Teruya, Y. Katakura, K. Otubo, S. Morisawa & S. Shirahata

Conference paper

415 Accesses

Part of the <u>Animal Cell Technology: Basic & Applied Aspects</u> book series (ANICELLTECH, volume 13)

Abstract

Electrolyzed-reduced water (ERW) produced by electrolyzing water in cathode side has the ability to scavenge reactive oxygen species (ROS). Here, we investigated the effect of ERW on oxidative stress-induced neural cell death by glutamate. When cell viability assay was performed using primary rat

cerebral cortical culture as neural model, ERW suppressed neural cell death by glutamate.

Furthermore, intracellular ROS levels were reduced by ERW, suggesting that suppressive effect of ERW on the glutamate-induced neural cell death was due to the suppression of glutamate-induced ROS augmentation by ERW.

Keywords

Nitric Oxide

Intracellular Reactive Oxygen Species

Cytosine Arabinoside

Intracellular Reactive Oxygen Species Level

Primary Cortical Culture

These keywords were added by machine and not by the authors. This process is experimental and the keywords may be updated as the learning algorithm improves.

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About this paper

Cite this paper

Kashiwagi, T. *et al.* (2003). Suppression of glutamate-induced neural cell death by electrolyzed-reduced water. In: Yagasaki, K., Miura, Y., Hatori, M., Nomura, Y. (eds) Animal Cell Technology: Basic & Applied Aspects. Animal Cell Technology: Basic & Applied Aspects, vol 13. Springer, Dordrecht. https://doi.org/10.1007/978-94-017-0726-8_18

<u>.RIS</u> <u>**±** .ENW</u> <u>**±** .BIB</u> <u>**±**</u>

DOI Publisher Name Print ISBN

https://doi.org/10. Springer, 978-90-481-6557-

1007/978-94-017- Dordrecht 5

0726-8_18

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