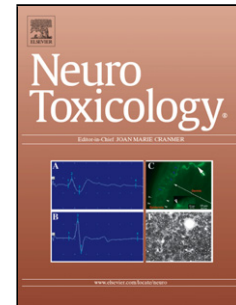


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AGATHISFLAVONE, A FLAVONOID DERIVED FROM *POINCIANELLA PYRAMIDALIS* (Tul.), ENHANCES NEURONAL POPULATION AND PROTECTS AGAINST GLUTAMATE EXCITOTOXICITY

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Highlights

- Neuroprotective effect of agathisflavone against excitotoxicity
- agathisflavone enhance neuronal population
- Anti-inflammatory activity of agathisflavone.

Abstract

Flavonoids are bioactive compounds that are known to be neuroprotective against glutamate-mediated excitotoxicity, one of the major causes of neurodegeneration. The mechanisms underlying these effects are unresolved, but recent evidence indicates flavonoids may modulate estrogen signaling, which can delay the onset and ameliorate the severity of neurodegenerative disorders. Furthermore, the roles played by glial cells in the neuroprotective effects of flavonoids are poorly understood. The aim of this study was to investigate the effects of the flavonoid agathisflavone (FAB) in primary neuron-glia co-cultures from postnatal rat cerebral cortex. Compared to controls, treatment with FAB significantly increased the number of neuronal progenitors and mature neurons, without increasing astrocytes or microglia. These pro-neuronal effects of FAB were suppressed by antagonists of

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