

## عنوان مقاله:

Protective effect of Hibiscus sabdariffa against serum/glucose deprivation-induced PC12 cells injury

## محل انتشار:

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## خلاصه مقاله:

Objectives: Findings natural products with antioxidant and antiapoptotic properties has been one of the interesting challenges in the search for the treatment of neurodegenerative diseases including ischemic stroke. Serum/glucose deprivation (SGD) has been used as a model for the understanding of the molecular mechanisms of neuronal damage during ischemia in vitro and for the expansion of neuroprotective drugs against ischemia-induced brain injury. Recent studies showed that Hibiscus sabdariffa exert pharmacological actions such as potent antioxidant. Therefore, in this study we investigated the protective effect of extract of H. sabdariffa against SGD-induced PC12 cells injury. Materials and Methods: Cells were pretreated with different concentrations of H. sabdariffa extract (HSE) for 2 hr, and then exposed to SGD condition for 6, 12 and 18 hr. Results: SGD caused a major reduction in cell viability after 6, 12, and 18 hr as compared with control cells ( $p < 0.001$ ). Pretreatment with HSE (30-500 g/mL) significantly increased cell viability following SGD insult for 6, 12 and 18 hr. A significant increase in cell apoptosis was seen in cells under SGD condition after 12hr as compared with control cells ( $p < 0.001$ ). Pretreatment with HSE significantly decreased cell apoptosis subsequent SGD condition after 12hr at concentration of 60, 125 and 250. Conclusion: These data showed that HSE had a protective property under SGD condition in PC12 cells, suggesting that H. sabdariffa has the potential to be used as a new therapeutic approach for neurodegenerative disorders.

## کلمات کلیدی:

Hibiscus sabdariffa, SGD, PC12 cell, Apoptosis

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/930493>



