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**SOCIEDAD ARGENTINA DE
INVESTIGACIÓN EN NEUROCIENCIAS**

An alkaloid extract obtained from *Huperzia saururus* induces neuroprotection in an in vitro model of neuronal death

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Previous data shows that an (AE), obtained from the Lycopodium fern *Huperzia saururus* has functions such as acetylcholinesterase inhibition, and also has an effect on learning and memory. The aim of this study was to determine if the AE has also a neuroprotective property in a in vitro model of neuronal death. We found that 24 hour after being added to hippocampal neuron culture, the AE induced a significative neuroprotection. As a possible mechanism of this effect we determine if the extract induced modifications in the well known survival protein the neurotrophin receptor TrkB. We found that AE induces a remarkable activation (phosporilation state) of TrkB. Also AE induces a significant increase in the survival of hippocampal neurons exposed to an environmental stress that induce cell death. These results together with those obtained by Montrull et al., suggests that AE may be a perfect candidate for use for protection of neuronal cell death in several neurological disorders in which there and neuronal death.