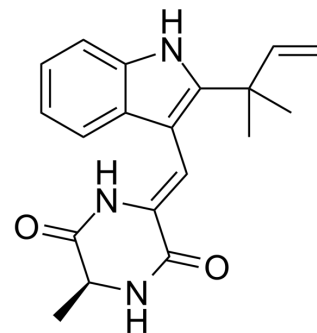


Neoechinulin A

Cat. No.:	HY-N3204
CAS No.:	51551-29-2
Molecular Formula:	C ₁₉ H ₂₁ N ₃ O ₂
Molecular Weight:	323.39
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Neoechinulin A is an isoprenyl indole alkaloid that exhibits scavenging, neurotrophic factor-like, and anti-apoptotic activities. Neoechinulin A induces memory improvements and antidepressant-like effects in mice ^{[1][2]} .
In Vitro	<p>Neoechinulin A (RAW264.7 macrophages; 3 hours; cells then stimulated with LPS (1 µg/mL) for 18 hours) suppresses PGE₂, TNF-α, and IL-1β production in a dose-dependent manner^[2].</p> <p>Neoechinulin A can suppress the production of pro-inflammatory mediators and cytokines including NO, PGE₂, TNF-α, and IL-1β. Further, it reduced the expression of iNOS and COX-2 in LPS-stimulated RAW264.7 macrophages by inhibiting the NF-κB and p38 MAPK signaling pathways^[2].</p> <p>Neoechinulin A suppresses amyloid-β oligomer-induced microglia activation and thereby protects PC-12 cells from inflammation-mediated toxicity^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>In the Y-maze test, the intracerebroventricular (i.c.v.) administration of LPS (10 µg/mouse) significantly decreased spontaneous alternation behavior, which was prevented by the prior administration of neoechinulin A (300ng/mouse, i.c.v.)^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Humbert M, et al. Masitinib combined with standard gemcitabine chemotherapy: in vitro and in vivo studies in human pancreatic tumour cell lines and ectopic mouse model. *PLoS One*. 2010;5(3):e9430. Published 2010 Mar 4.
- [2]. Kim KS, et al. Anti-inflammatory effect of neoechinulin a from the marine fungus *Eurotium* sp. SF-5989 through the suppression of NF-κB and p38 MAPK Pathways in lipopolysaccharide-stimulated RAW264.7 macrophages. *Molecules*. 2013;18(11):13245-13259. Published 2013 Oct 25.
- [3]. Dewapriya P, et al. Neoechinulin A suppresses amyloid-β oligomer-induced microglia activation and thereby protects PC-12 cells from inflammation-mediated toxicity. *Neurotoxicology*. 2013;35:30-40.

Caution: Product has not been fully validated for medical applications. For research use only.

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