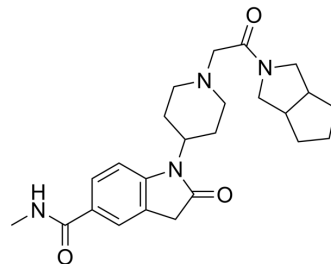


ARN14494

Cat. No.:	HY-115498
CAS No.:	1037837-27-6
Molecular Formula:	C ₂₄ H ₃₂ N ₄ O ₃
Molecular Weight:	424.54
Target:	Apoptosis; NO Synthase; Interleukin Related; COX
Pathway:	Apoptosis; Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	ARN14494 is a potent and selective serine palmitoyltransferase (SPT) inhibitor, with an IC ₅₀ of 27.3 nM. ARN14494 affects the CNS in terms of anti-inflammation and neuroprotection. ARN14494 protects neurons from β-amyloid 1-42-induced neurotoxicity through a variety of mechanisms, including anti-oxidation, anti-apoptosis, and anti-inflammation. ARN14494 can be used for Alzheimer's disease research ^[1] .		
IC₅₀ & Target	IL-1β	iNOS	COX-2
In Vitro	<p>ARN14494 (1-10 μM) inhibits SPT activity in mouse primary astrocytes in a concentration-dependent manner^[1].</p> <p>ARN14494 (10 μM, 24 h) decreases ceramide and dihydroceramide levels in primary cortical astrocytes treated with Aβ1-42^[1].</p> <p>ARN14494 (10 μM, 0-24 h) inhibits oligomeric Aβ-induced production of pro-inflammatory molecules including NO, TNF-α, IL1β, TGF1β, and pro-inflammatory enzymes INOS and COX-2 in cultures of primary astrocytes^[1].</p> <p>ARN14494 reduces Aβ neurotoxicity and caspase-3 activation treated with astrocyte-conditioned medium in cultures of cortical neurons^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>		

REFERENCES

[1]. De Vita T, et al. Inhibition of Serine Palmitoyltransferase by a Small Organic Molecule Promotes Neuronal Survival after Astrocyte Amyloid Beta 1-42 Injury. ACS Chem Neurosci. 2019 Mar 20;10(3):1627-1635.

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

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