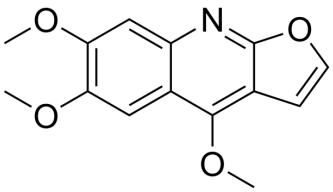
Kokusaginine

Cat. No.:	HY-114803
CAS No.:	484-08-2
Molecular Formula:	$C_{14}H_{13}NO_4$
Molecular Weight:	259.26
Target:	Cholinesterase (ChE); Apoptosis; Microtubule/Tubulin
Pathway:	Neuronal Signaling; Apoptosis; Cell Cycle/DNA Damage; Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Kokusaginine is a furoquinoline alkaloids, which exhibits inhibitory efficacy for acetylcholinesterase (AChE) with an IC_{50} of 28.2 μM. Kokusaginine exhibits anti-proliferative and apoptotic inducing effects in MCF-7/ADR cells[1][2].
IC_{50} & Target	AChE 28.2 μM (IC_{50})

In Vitro

Kokusaginine (0-30 μM) inhibits proliferations of cells MCF-7, MDA-MB-231 and their multidrug resistant sublines MCF-7/ADR, MDA-MB-231/ADR, with IC_{50}s of 7.23, 4.62, 9.01 and 10.19 μM through inhibition of tubulin polymerization[2].

Kokusaginine (6-24 μM) induces apoptosis in cells MCF-7 and MCF-7/ADR in a dose-dependent manner[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[2]

Cell Line:	MCF-7 and MCF-7/ADR
Concentration:	0-24 μM
Incubation Time:	
Result:	Induced apoptosis.

Real Time qPCR[2]

Cell Line:	MCF-7 and MCF-7/ADR
Concentration:	0-24 μM
Incubation Time:	
Result:	Decreased mRNA levels of P-gp in cells MCF-7/ADR.

REFERENCES

[1]. Sichaem J, et al., Furoquinoline Alkaloids from the Leaves of Evodia lepta as Potential Cholinesterase Inhibitors and their Molecular Docking. Nat Prod Commun. 2015

Aug;10(8):1359-62.

[2]. Chen H, et al., The inhibitory effect of kokusaginine on the growth of human breast cancer cells and MDR-resistant cells is mediated by the inhibition of tubulin assembly. Bioorg Med Chem Lett. 2018 Aug 1;28(14):2490-2492.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA