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Data Sheet

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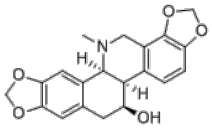
Product Name	:	Chelidonine
Cat. No.	:	PC-72222
CAS No.	:	476-32-4
Molecular Formula	:	$C_{20}H_{19}NO_5$
Molecular Weight	:	353.374
Target	:	Ras
Solubility	:	



Biological Activity

Chelidonine (Stylophorin, (+)-Chelidonine) is a potent, selective, ATP-competitive inhibitor of STK19 kinase activity, inhibits STK19-mediated NRAS S89 phosphorylation with IC50 of 125 nM, inhibits NRAS-mediated signaling.
In vitro, Chelidonine treatment inhibited NRAS signaling, leading to reduced cell proliferation and induction of apoptosis in a panel of NRAS-mutant cancer cell lines, including melanoma, liver, lung, and gastric cancer.
In vivo, Chelidonine suppressed the growth of NRAS-driven tumor cells in nude mice while exhibiting minimal toxicity.
Chelidonine is one of the most abundant bioactive isoquinoline alkaloids in extracts of the plant Chelidonium majus, which is also known as the greater celandine (Papaveraceae) and is widely distributed throughout Europe and Asia.
Chelidonine possess antitumor properties, including inhibition of cell proliferation, potentiation of apoptosis, and suppression of cell migration and invasion, in cell lines from such diverse cancers as uveal melanoma, head and neck cancer, gastric carcinoma, liver cancer, and breast cancer.

References

Ling Qian, et al. Clin Cancer Res. 2020 Jul 1;26(13):3408-3419.

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