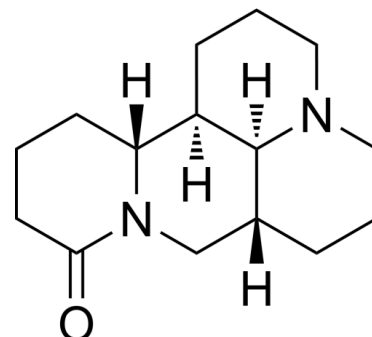


Data Sheet

Product Name:	Sophoridine
Cat. No.:	CS-0016780
CAS No.:	6882-68-4
Molecular Formula:	C ₁₅ H ₂₄ N ₂ O
Molecular Weight:	248.37
Target:	Apoptosis
Pathway:	Apoptosis
Solubility:	DMSO : 50 mg/mL (ultrasonic)



BIOLOGICAL ACTIVITY:

Sophoridine is a quinolizidine alkaloid isolated from Leguminous plant *Sophora flavescens*. Sophoridine induces **apoptosis**. Sophoridine has the potential to be a novel, potent and selective antitumor drug candidate for pancreatic cancer with well-tolerated toxicity^[1]. *In Vitro*: Sophoridine (0-500 µM; 48 hours) exhibits remarkable inhibition effects to the growth of human pancreatic, gastric, liver, colon, gallbladder, and prostate carcinoma cells with IC₅₀ values of about 20 µM to 200 µM^[1]. Sophoridine (0-20 µM; 48 hours) increases S phase cell population from 26.23% (control) to 38.67% in Miapaca-2 cells and from 29.56% (control) to 39.16% in PANC-1 cells, about a 1.5-fold and a 1.3-fold increase, respectively^[1]. Sophoridine (0-20 µM; 48 hours) significantly increases bad and bax levels, and decreases bcl-2 and bcl-xl levels in contrast, with a significant increase in Bax/Bcl-2 ratio^[1]. *In Vivo*: Sophoridine (intraperitoneal injection; 20 or 40 mg/kg; 21 days) can inhibit the growth of xenograft pancreatic tumors^[1].

References:

[1]. Xu Z, et al. Sophoridine induces apoptosis and S phase arrest via ROS-dependent JNK and ERK activation in human pancreatic cancer cells. J Exp Clin Cancer Res. 2017 Sep 11;36(1):124.

CAIndexNames:

1H,5H,10H-Dipyrido[2,1-f:3',2',1'-ij][1,6]naphthyridin-10-one, dodecahydro-, (7aR,13aR,13bR,13cS)-

SMILES:

O=C1CCC[C@]2([H])[C@@]3([H])CCCN4[C@@]3([H])[C@@](CCC4)([H])CN21

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

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