Sennoside B

Cat. No.: HY-N0366

CAS No.: 128-57-4

Molecular Formula: $C_{42}H_{38}O_{20}$

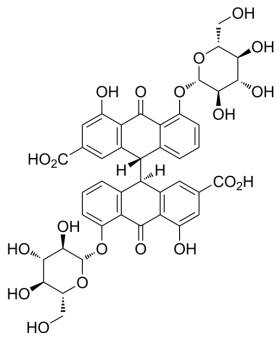
Molecular Weight: 862.74

Target: PDGFR

Pathway: Protein Tyrosine Kinase/RTK

Storage: 4°C, sealed storage, away from moisture and light

* The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (115.91 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.1591 mL	5.7955 mL	11.5910 mL
	5 mM	0.2318 mL	1.1591 mL	2.3182 mL
	10 mM	0.1159 mL	0.5795 mL	1.1591 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (2.90 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (2.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sennoside B is a potent and orally active platelet-derived growth factor (PDGF) inhibitor. Sennoside B inhibits cell proliferation and the expression of phosphorylation of PDGFR-β, STAT-5, AKT and ERK induced by PDGF-BB. Sennoside B shows gastroprotective activities. Sennoside B has the potential for the research of gastritis[1][2].

In Vitro

Sennoside B increases prostaglandin E2 (PGE2) levels and inhibits H+/K+-ATPase[1].
Sennoside B (50, 100 μM) increases the concentration of PGE2 to 105.4 pg/mL and 173.6 pg/mL in AGS gastric cells at doses of 50 μM and 100 μM, respectively[1].
Sennoside B (0, 10, 100, 1000 nM) decreases the expression of PDGF-BB-induced phosphorylation of PDGFR-β, STAT-5, AKT and ERK in a dose-dependent manner[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Western Blot Analysis[2]

Cell Line:	MG63 cells
Concentration:	0, 10, 100, 1000 nM
Incubation Time:	
Result:	Resulted in a marked inhibition of PDGF-BB-induced PDGFR-β phosphorylation.

In Vivo

Sennoside B (100 mg/kg; p.o.) shows gastroprotective activities by reducing lesion indices in HCl•EtOH and Indomethacin (HY-14397) induces gastritis in rats[1].

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

Animal Model:	170-200g, Male Sprague-Dawley rats (HCl•EtOH-induced gastritis)[1]
Dosage:	100 mg/kg
Administration:	P.o.
Result:	Reduced lesion indices to 60.8 ± 18.4 mm, by inhibition rate of 39.9%.

CUSTOMER VALIDATION

- Cell Host Microbe. 2023 Nov 8;31(11):1820-1836.e10.

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REFERENCES

[1]. Hwang IY, et al. Gastroprotective Activities of Sennoside A and Sennoside B via the Up-Regulation of Prostaglandin E2 and the Inhibition of H(+)/K(+)-ATPase. Biomol Ther (Seoul). 2015 Sep;23(5):458-64.

[2]. Chen YC, et al. Sennoside B inhibits PDGF receptor signaling and cell proliferation induced by PDGF-BB in human osteosarcoma cells. Life Sci. 2009 Jun 19;84(25-26):915-22.

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

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