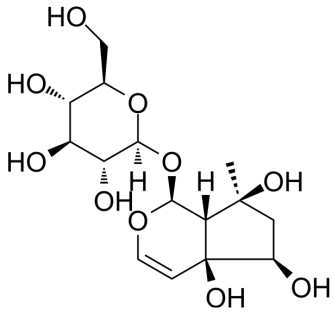
Harpagide

Cat. No.:	HY-N0397
CAS No.:	6926-08-5
Molecular Formula:	$C_{15}H_{24}O_{10}$
Molecular Weight:	364.35
Target:	Parasite
Pathway:	Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (274.46 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7446 mL	13.7231 mL	27.4461 mL
	5 mM	0.5489 mL	2.7446 mL	5.4892 mL
	10 mM	0.2745 mL	1.3723 mL	2.7446 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 (6.86 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.86 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.86 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Harpagide is a class of iridoid glycoside isolated from Scrophularia ningpoensis and has antiparasitic activity, which exhibits good in vitro trypanocidal activities against African trypanosomes (***T.b. rhodesiense***) with an IC_{50} of 21 μg/mL. Harpagide exerts significant antileishmanial activity against ***L. donovani*** with an IC_{50} value of 2.0 μg/mL. Harpagide also possess significant anti-inflammatory activities[1][2].

IC_{50} & Target	Trypanosoma	Leishmania

In Vitro

Harpagide shows cytotoxic activity over 50% in a concentration of 90 μg/mL, Harpagide on the A431 and HeLa cell lines. The cytotoxic effect of Harpagide on the MCF7 cell line in a concentration of 90 μg/mL[3].

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

REFERENCES

[1]. Tasdemir D, et al. Evaluation of antiprotozoal and antimycobacterial activities of the resin glycosides and the other metabolites of Scrophularia cryptophila. Phytomedicine. 2008 Mar;15(3):209-15.

[2]. Zhang L, et al. Effects of β-glucosidase hydrolyzed products of harpagide and harpagoside on cyclooxygenase-2 (COX-2) in vitro. Bioorg Med Chem. 2011 Aug 15;19(16):4882-6.

[3]. Háznagy-Radnai E, et al. Cytotoxic activities of Stachys species. Fitoterapia. 2008 Dec;79(7-8):595-7.

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

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