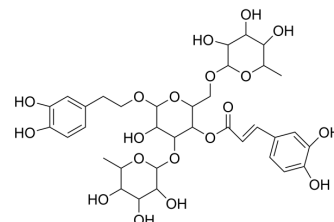


Poliumoside

Cat. No.:	HY-N0033		
CAS No.:	94079-81-9		
Molecular Formula:	C ₃₅ H ₄₆ O ₁₉		
Molecular Weight:	770.73		
Target:	Aldose Reductase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (129.75 mM; Need ultrasonic)
 Ethanol : 50 mg/mL (64.87 mM; Need ultrasonic)
 H₂O : 50 mg/mL (64.87 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		1.2975 mL	6.4874 mL	12.9747 mL
	5 mM		0.2595 mL	1.2975 mL	2.5949 mL
	10 mM		0.1297 mL	0.6487 mL	1.2975 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (3.24 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (3.24 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (3.24 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Poliumoside, a caffeoylated phenylpropanoid glycoside, is isolated from *Brandisia hancei* stems and leaves. Poliumoside is an advanced glycation end product (AGE) formation and rat lens aldose reductase (RLAR) inhibitor, with IC₅₀s of 19.69 and 8.47 μM, respectively. Poliumoside also has antiinflammatory and antioxidant activity^{[1][2][3]}.

IC₅₀ & Target

IC₅₀: 8.47 μM (aldose reductase)^[1]

In Vitro	Poliumoside inhibits AGE formation and RLAR, with IC ₅₀ s of 19.69, and 8.47 μM, respectively ^[1] . Poliumoside (5-30 μM; 3 h) inhibits AAPH-induced hemolysis of rat red blood cells in vitro ^[2] . Poliumoside (12.5-100 μM; pretreated 2 h) inhibits the release of TNF-α and IL-6 in LPS-induced RAW 264.7 cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Poliumoside inhibits vessel dilation in larval zebrafish ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Microbiol Spectr. 2023 Sep 21;e0267123.

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REFERENCES

- [1]. Yu SY, et al. Caffeoylated phenylpropanoid glycosides from *Brandisia hancei* inhibit advanced glycation end product formation and aldose reductase in vitro and vessel dilation in larval zebrafish in vivo. *Planta Med.* 2013 Dec;79(18):1705-9.
- [2]. He ZD, et, al. Antioxidant activity of phenylethanoid glycosides from *Brandisia hancei*. *J Ethnopharmacol.* 2000 Aug;71(3):483-6.
- [3]. Wu A, et, al. Natural phenylethanoid glycosides isolated from *Callicarpa kwangtungensis* suppressed lipopolysaccharide-mediated inflammatory response via activating Keap1/Nrf2/HO-1 pathway in RAW 264.7 macrophages cell. *J Ethnopharmacol.* 2020 Aug 10;258:112857.
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Caution: Product has not been fully validated for medical applications. For research use only.

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