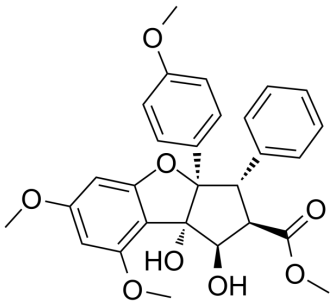
Aglafoline

Cat. No.:	HY-19354
CAS No.:	143901-35-3
Molecular Formula:	$C_{28}H_{28}O_8$
Molecular Weight:	492.52
Target:	Others
Pathway:	Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 100 mg/mL (203.04 mM; Need ultrasonic)
DMSO : 21.43 mg/mL (43.51 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0304 mL	10.1519 mL	20.3037 mL
5 mM	0.4061 mL	2.0304 mL	4.0607 mL
10 mM	0.2030 mL	1.0152 mL	2.0304 mL

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

In Vivo

1. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.08 mM); Clear solution
2. Add each solvent one by one: 10% EtOH >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.08 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.14 mg/mL (4.35 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.14 mg/mL (4.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Aglafoline inhibits in a selective and concentration-dependent manner the aggregation and ATP release reaction induced in washed rabbit platelets by PAF (platelet-activating factor). The IC50 values of Aglafoline on PAF (3.6 nM)-induced platelet aggregation were about 50 μM.ic50 value: 50 μMTarget: PAFin vitro: Aglafoline also inhibits [3H]PAF (3.6 nM) binding to washed rabbit platelets with an IC50 value of 17.8 ± 2.6 μM. The concentration-response curve of PAF-induced platelet

aggregation was shifted to the right by Aglafoline with pA2 and pA10 values of 5.97 and 5.04, respectively. Although thromboxane B2 formation caused by collagen and thrombin was partially suppressed by Aglafoline, thromboxane B2 formation caused by ionophore A23187 and arachidonic acid was not affected. Aglafoline inhibited the [3H]inositol monophosphate formation caused by PAF but not that caused by collagen or thrombin in the presence of indomethacin (20 μM). [1]in vivo: The cAMP content of washed rabbit platelets was not affected by Aglafoline. Rat femoral intravenous administration of Aglafoline (10 mg/kg) did not affect blood pressure. However, Aglafoline (10 mg/kg) both prophylactically and therapeutically antagonized PAF (2.5 μg/kg)-induced hypotensive shock in rats. Intravenous PAF (30 ng/kg) caused severe bronchoconstriction in guinea pigs. This effect was completely blocked by Aglafoline. This implies Aglafoline is an effective PAF antagonist not only in vitro, but also in vivo.[1]

CUSTOMER VALIDATION

- Mol Cell. 2019 Feb 21;73(4):738-748.e9.

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REFERENCES

[1]. Ko FN, et al. PAF antagonism in vitro and in vivo by aglafoline from Aglaia elliptifolia Merr. Eur J Pharmacol. 1992 Jul 21;218(1):129-35.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA