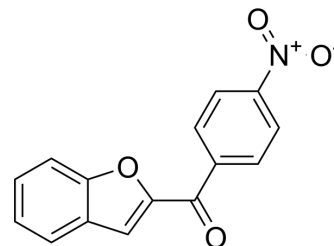


α -Amylase-IN-3

Cat. No.:	HY-149008		
CAS No.:	93944-58-2		
Molecular Formula:	C ₁₅ H ₉ NO ₄		
Molecular Weight:	267.24		
Target:	Amylases		
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 : 11.11 mg/mL (41.57 mM); ultrasonic and warming and heat to 80°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.7420 mL	18.7098 mL	37.4195 mL
		5 mM	0.7484 mL	3.7420 mL	7.4839 mL
10 mM		0.3742 mL	1.8710 mL	3.7420 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: 1.11 mg/mL (4.15 mM); Clear solution; Need ultrasonic				
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 1.11 mg/mL (4.15 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	α -Amylase-IN-3 (Compound 4) is a none-competitive type of α -Amylase inhibitor with an IC ₅₀ value of 18.04 μ M, which also has radical scavenging activities (DPPH and ABTS) with IC ₅₀ values of 16.04 μ M (DPPH) and 16.99 μ M (ABTS), respectively. α -Amylase-IN-3 has good protein–ligand interactions profile against α -Amylase. α -Amylase-IN-3 may have pharmacological activities such as anti-oxidative, anti-inflammatory inhibitory, which is helpful for the development of diabetes and oxidative stress associated disease ^[1] .
IC ₅₀ & Target	IC ₅₀ : 18.04 μ M (α -Amylase), 16.04 μ M (DPPH), 16.99 μ M (ABTS) ^[1] .

REFERENCES

[1]. Na Li, et al. Design, synthesis and biological evaluation of novel plumbagin derivatives as potent antitumor agents with STAT3 inhibition. Bioorg Chem. 2020 Nov;104:104208.

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

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