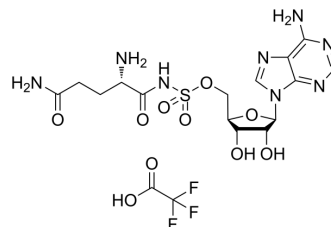


Gln-AMS TFA

Cat. No.:	HY-112861A
Molecular Formula:	C ₁₇ H ₂₃ F ₃ N ₈ O ₁₀ S
Molecular Weight:	588.47
Target:	Aminoacyl-tRNA Synthetase; Bacterial
Pathway:	Metabolic Enzyme/Protease; Anti-infection
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 130 mg/mL (220.91 mM; Need ultrasonic)					
	DMSO : 50 mg/mL (84.97 mM; ultrasonic and warming and heat to 60°C)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		1.6993 mL	8.4966 mL	16.9932 mL
5 mM			0.3399 mL	1.6993 mL	3.3986 mL	
10 mM		0.1699 mL	0.8497 mL	1.6993 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 4.25 mg/mL (7.22 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.25 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.25 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Gln-AMS (TFA) is a type Ia aminoacyl-tRNA synthetase (AARS) inhibitor. Gln-AMS inhibits glutaminyl-tRNA synthetase (GlnRS) with a K _i of 1.32 μM.
IC ₅₀ & Target	Ki: 1.32 μM (GlnRS) ^[1]
In Vitro	Gln-AMS (TFA) is a type Ia aminoacyl-tRNA synthetase (AARS) inhibitor ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Rath VL, et al. How glutamyl-tRNA synthetase selects glutamine. *Structure*. 1998 Apr 15;6(4):439-49.
- [2]. Fang P, et al. Structural basis for full-spectrum inhibition of translational functions on a tRNA synthetase. *Nat Commun*. 2015 Mar 31;6:6402.
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Caution: Product has not been fully validated for medical applications. For research use only.

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