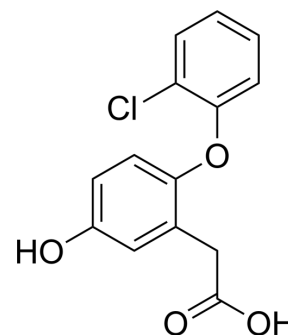


CaMKII α -IN-1

Cat. No.:	HY-146268		
Molecular Formula:	C ₁₄ H ₁₁ ClO ₄		
Molecular Weight:	278.69		
Target:	CaMK		
Pathway:	Neuronal Signaling		
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 (358.82 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.5882 mL	17.9411 mL	35.8822 mL
		5 mM	0.7176 mL	3.5882 mL	7.1764 mL
		10 mM	0.3588 mL	1.7941 mL	3.5882 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (8.97 mM); Clear solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (8.97 mM); Clear solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (8.97 mM); Clear solution; Need ultrasonic 				

BIOLOGICAL ACTIVITY

Description	CaMKII α -IN-1 (Compound 4d) is an orally active Ca ²⁺ /calmodulin-dependent protein kinase II α (CaMKII α) inhibitor with a K _D of 219 nM for CaMKII α WT hub. CaMKII α -IN-1 has good metabolic stability ^[1] .
IC₅₀ & Target	CaMK II α 219 nM (Kd)

REFERENCES

[1]. Tian Y, et al. Discovery and Optimization of 5-Hydroxy-Diclofenac toward a New Class of Ligands with Nanomolar Affinity for the CaMKII α Hub Domain. J Med Chem. 2022 May 12;65(9):6656-6676.

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

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