

Autocamtide-2-related inhibitory peptide TFA

Cat. No.:	HY-P0214A	
Molecular Formula:	C ₆₆ H ₁₂₆ N ₂₂ O ₂₁ F ₃	
Molecular Weight:	1611.76	
Sequence:	Lys-Lys-Ala-Lru-Arg-Arg-Gln-Glu-Ala-Val-Asp-Ala-Leu	KKALRRQEAVDAL (TFA salt)
Sequence Shortening:	KKALRRQEAVDAL	
Target:	CaMK; Autophagy	
Pathway:	Neuronal Signaling; Autophagy	
Storage:	Sealed storage, away from moisture	
	Powder	-80°C 2 years -20°C 1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)	

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 110 mg/mL (68.25 mM); Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		0.6204 mL	3.1022 mL	6.2044 mL
		5 mM		0.1241 mL	0.6204 mL	1.2409 mL
		10 mM		0.0620 mL	0.3102 mL	0.6204 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (31.02 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Autocamtide-2-related inhibitory peptide (TFA) is a highly specific and potent inhibitor of CaMKII with an IC ₅₀ of 40 nM.
IC₅₀ & Target	IC ₅₀ : 40 nM (CaMKII) ^[1] .
In Vitro	It is found that Autocamtide-2-related inhibitory peptide (TFA) is a potent inhibitor of CaM-kinase II with an IC ₅₀ of 40 nM, which is active in the presence or absence of Ca ²⁺ /calmodulin. It is 50 and 500 times more potent than CaMK-(281-302Ala286) and KN-93, respectively, under the assay condition used ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Commun. 2021 Jun 10;12(1):3519.

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REFERENCES

- [1]. Ishida A, et al. A novel highly specific and potent inhibitor of calmodulin-dependent protein kinase II. Biochem Biophys Res Commun. 1995 Jul 26;212(3):806-12.
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Caution: Product has not been fully validated for medical applications. For research use only.

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