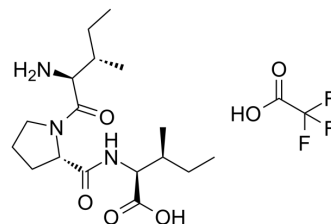


Diprotin A TFA

Cat. No.:	HY-111174A
CAS No.:	209248-71-5
Molecular Formula:	C ₁₉ H ₃₂ F ₃ N ₃ O ₆
Molecular Weight:	455.47
Target:	Dipeptidyl Peptidase
Pathway:	Metabolic Enzyme/Protease
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

H₂O : ≥ 77.5 mg/mL (170.15 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		2.1955 mL	10.9777 mL	21.9553 mL
	5 mM		0.4391 mL	2.1955 mL	4.3911 mL
	10 mM		0.2196 mL	1.0978 mL	2.1955 mL

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

In Vivo

1. Add each solvent one by one: PBS
 Solubility: 100 mg/mL (219.55 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Diprotin A TFA (Ile-Pro-Ile TFA) is an inhibitor of dipeptidyl peptidase IV (DPP-IV)^[1].

IC₅₀ & Target

DPP-IV^[1].

In Vitro

Diprotin A increases the phosphorylation of Src and vascular endothelial-cadherin (VE-cadherin) in human endothelial cells and disrupts endothelial cell-to-cell junctions, which are attenuated by CXCR4 (receptor of SDF-1α)-blocker or Src-inhibitor [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

In the model of retinopathy of prematurity, Diprotin A increases not only retinal vascularity but also leakage. Additionally, in the murine diabetic retinopathy model, Diprotin A increases the phosphorylation of Src and VE-cadherin and aggravates

vascular leakage in the retinas. Collectively, Diprotin A induces vascular leakage by augmenting the SDF-1 α /CXCR4/Src/VE-cadherin signaling pathway^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Lee CS, et al. Dipeptidyl Peptidase-4 Inhibitor Increases Vascular Leakage in Retina through VE-cadherin Phosphorylation. Sci Rep. 2016 Jul 6;6:29393.

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

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