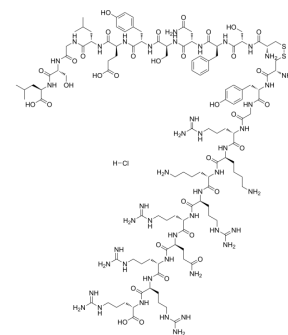


Delcasertib hydrochloride

Cat. No.:	HY-106262B
Molecular Formula:	C ₁₂₀ H ₂₀₀ ClN ₄₅ O ₃₄ S ₂
Molecular Weight:	2916.74
Sequence Shortening:	Sequence 1:CYGRKKRRQRRR;Sequence 1':CSFNSYELGSL (Disulfide bridge:Cys1-Cys1')
Target:	PKC
Pathway:	Epigenetics; TGF-beta/Smad
Storage:	Sealed storage, away from moisture and light Powder -80°C 2 years -20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (34.28 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions	1 mM	1 mg	5 mg	10 mg
		5 mM	0.3428 mL	1.7142 mL	3.4285 mL
		10 mM	0.0686 mL	0.3428 mL	0.6857 mL
	10 mM	0.0343 mL	0.1714 mL	0.3428 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 (17.14 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	Delcasertib (KAI-9803) hydrochloride is a potent and selective δ -protein kinase C (δ PKC) inhibitor. Delcasertib (KAI-9803) hydrochloride could ameliorate injury associated with ischemia and reperfusion in animal models of acute myocardial infarction (MI) ^{[1][2]} .
IC₅₀ & Target	δ PKC
In Vitro	Delcasertib (KAI-9803) is composed of a selective δ -protein kinase C (δ PKC) inhibitor peptide derived from the δ V1-1 portion of δ PKC (termed "cargo peptide"), conjugated reversibly to the cell-penetrating peptide 11-amino acid, arginine-rich sequence of the HIV type 1 transactivator protein (TAT47-57; termed "carrier peptide") via a disulfide bond ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Delcasertib (KAI-9803, a single intraperitoneal injection) in mice results in the selective inhibition of PKC translocation in the liver, kidney, lung, heart, and brain^[1].

Delcasertib (KAI-9803) administration at the end of ischemia has been found to reduce cardiac damage caused by ischemia-reperfusion in a rat model of acute myocardial infarction^[1].

Delcasertib (KAI-9803) has been studied for the prevention of reperfusion injury in patients undergoing angioplasty after acute myocardial infarction^[2].

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

Animal Model:	Six-week-old male Crl:CD(SD) rats ^[1]
Dosage:	1 mg/kg (Pharmacokinetic Analysis).
Administration:	Via the femoral vein.
Result:	The distribution to tissues such as the liver, kidney, and heart is facilitated by the reversible conjugation to TAT47-57.

CUSTOMER VALIDATION

- Nature. 2021 Mar;591(7851):620-626.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Miyaji Y, et al. Distribution of KAI-9803, a novel δ -protein kinase C inhibitor, after intravenous administration to rats. Drug Metab Dispos. 2011 Oct;39(10):1946-53.

[2]. Bates E, et al. Intracoronary KAI-9803 as an adjunct to primary percutaneous coronary intervention for acute ST-segment elevation myocardial infarction. Circulation. 2008 Feb 19;117(7):886-96.

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

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