# Inhibitors

# Diaplasinin

Cat. No.: HY-122098 CAS No.: 481631-45-2 Molecular Formula:  $C_{32}H_{31}N_5O$ Molecular Weight: 501.62 PAI-1 Target:

Pathway: Metabolic Enzyme/Protease Storage:

-20°C Powder 3 years  $4^{\circ}C$ 2 years -80°C In solvent

6 months -20°C 1 month

**Product** Data Sheet

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 125 mg/mL (249.19 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.9935 mL	9.9677 mL	19.9354 mL
	5 mM	0.3987 mL	1.9935 mL	3.9871 mL
	10 mM	0.1994 mL	0.9968 mL	1.9935 mL

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

## **BIOLOGICAL ACTIVITY**

Description Diaplasinin (PAI-749) is a plasminogen activator inhibitor-1 (PAI-1) inhibitor with IC50 of 295 nM. Diaplasinin has

antithrombotic efficacy<sup>[1]</sup>.

In Vitro PAI-749 is a potent and selective synthetic antagonist of plasminogen activator inhibitor 1 (PAI-1) that preserved tissue-type

plasminogen activator (tPA) and urokinase-type plasminogen activator (uPA) activities in the presence of PAI-1 (IC<sub>50</sub> values, 157 and 87 nM, respectively)<sup>[2]</sup>.

PAI-749 quenches the fluorescence (FI) of fluorophore-tagged PAI-1 (PAI-NBD119) with the apparent K<sub>d</sub> of 254 nM) and the IC <sub>50</sub> of 140 nM<sup>[2]</sup>.

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

### **REFERENCES**

[1]. A J Lucking, et al. Effect of the small molecule plasminogen activator inhibitor-1 (PAI-1) inhibitor, PAI-749, in clinical models of fibrinolysis. J Thromb Haemost. 2010 Jun;8(6):1333-9.



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