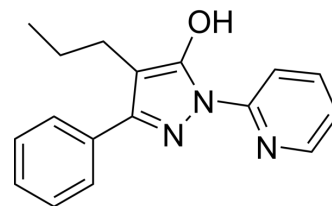


APX-115 free base

Cat. No.:	HY-120801A		
CAS No.:	1270084-92-8		
Molecular Formula:	C ₁₇ H ₁₇ N ₃ O		
Molecular Weight:	279.34		
Target:	NADPH Oxidase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (894.97 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.5799 mL	17.8993 mL	35.7987 mL
		5 mM	0.7160 mL	3.5799 mL	7.1597 mL
10 mM		0.3580 mL	1.7899 mL	3.5799 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: ≥ 2.08 mg/mL (7.45 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (7.45 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (7.45 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	APX-115 free base (Ewha-18278 free base) is a potent, orally active pan NADPH oxidase (Nox) inhibitor with K _i values of 1.08 μM, 0.57 μM, and 0.63 μM for Nox1, Nox2 and Nox4, respectively. APX-115 free base effectively prevents kidney injury ^[1] .		
IC₅₀ & Target	NOX1	NOX2	NOX4
In Vitro	APX-115 free base (5 μM; 60 min) almost completely suppresses high glucose-induced proinflammatory and profibrotic molecule expression in the mouse podocyte cell line ^[2] .		

In the kidney, APX-115 free base attenuates Nox gene upregulation and protein expression while improving inflammatory and fibrotic processes^[2].

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

In Vivo

APX-115 free base (oral gavage; 60 mg/kg/day; for 12 weeks) significantly improves insulin resistance in diabetic mice^[2].

APX-115 free base treatment decreases the urinary excretion of albumin and plasma creatinine levels^[2].

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

Animal Model:	Six-week-old male diabetic db/db mice (C57BLKS/J-lepr ^{db} /lepr ^{db}) ^[2]
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Dosage:	60 mg/kg
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Administration:	Oral gavage; per day; for 12 weeks
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Result:	Significantly improved insulin resistance in diabetic mice.
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CUSTOMER VALIDATION

- Nat Immunol. 2021 Sep;22(9):1107-1117.

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REFERENCES

[1]. Kwon G, et al. A novel pan-Nox inhibitor, APX-115, protects kidney injury in streptozotocin-induced diabetic mice: possible role of peroxisomal and mitochondrial biogenesis. *Oncotarget*. 2017 Jun 16;8(43):74217-74232.

[2]. Cha JJ, et al. APX-115, a first-in-class pan-NADPH oxidase (Nox) inhibitor, protects db/db mice from renal injury. *Lab Invest*. 2017 Apr;97(4):419-431.

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

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