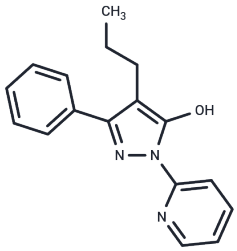
Data Sheet (Cat.No.T10353)

TargetMol

APX-115 free base

Chemical Properties



CAS No. : 1270084-92-8

Formula: C17H17N3O

Molecular Weight: 279.34

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	APX-115 free base (Ewha-18278 free base) is a potent, orally active pan NADPH oxidase (Nox) inhibitor with inhibition constants (Kis) of 1.08 μM, 0.57 μM, and 0.63 μM for Nox1, Nox2, and Nox4, respectively, and it effectively prevents kidney injury.
Targets(IC50)	NADPH,NADPH-oxidase
In vitro	In the mouse podocyte cell line, APX-115 free base (5?μM; 60?min) almost completely suppresses high glucose-induced proinflammatory and profibrotic molecule expression. In the kidney, APX-115 free base attenuates Nox gene upregulation and protein expression while improving inflammatory and fibrotic processes [2].
In vivo	APX-115 free base treatment decreases the urinary excretion of albumin and plasma creatinine levels. APX-115 (oral gavage; 60?mg/kg/day; for 12 weeks) significantly improves insulin resistance in diabetic mice.

Solubility Information

Solubility	DMSO: 245 mg/mL (877.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (17.9 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5799 mL	17.8993 mL	35.7987 mL
5 mM	0.716 mL	3.5799 mL	7.1597 mL
10 mM	0.358 mL	1.7899 mL	3.5799 mL
50 mM	0.0716 mL	0.358 mL	0.716 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.
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.