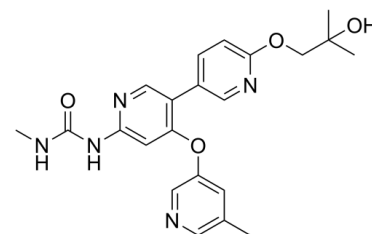


Data Sheet

Product Name:	AM-2394
Cat. No.:	CS-6079
CAS No.:	1442684-77-6
Molecular Formula:	C ₂₂ H ₂₅ N ₅ O ₄
Molecular Weight:	423.47
Target:	Glucokinase
Pathway:	Metabolic Enzyme/Protease
Solubility:	DMSO : ≥ 30 mg/mL (70.84 mM)



BIOLOGICAL ACTIVITY:

AM-2394 is a structurally distinct **glucokinase** activator (GKA). AM-2394 activates glucokinase (GK) with an **EC₅₀** of 60 nM. IC₅₀ & Target: EC₅₀: 60 nM (glucokinase)^[1] *In Vivo*: AM-2394, a structurally distinct glucokinase activator that displays a robust reduction in plasma glucose during an oral glucose tolerance test (OGTT) in *ob/ob* mice at a dose of 3 mg/kg. AM-2394 increases the affinity of glucokinase (GK) for glucose by approximately 10-fold, exhibits moderate clearance and good oral bioavailability in multiple animal models, and lowers glucose excursion following an oral glucose tolerance test in an *ob/ob* mouse model of diabetes. AM-2394 exhibits good-to-moderate cross species plasma clearance, volume of distribution, and oral bioavailability, allowing for further evaluation in animal models^[1].

PROTOCOL (Extracted from published papers and Only for reference)

Animal Administration: ^[1]Mice^[1]

In order to determine the effect of AM-2394 in an animal model of type 2 diabetes, it was administered per os (PO) to male *ob/ob* mice 30 minutes prior to performing an oral glucose tolerance test (OGTT). Doses of 1, 3, 10, 30 mg/kg each reduced glucose excursion, with maximal efficacy seen at 3 mg/kg.

References:

[1]. Dransfield PJ, et al. Novel Series of Potent Glucokinase Activators Leading to the Discovery of AM-2394. ACS Med Chem Lett. 2016 May 23;7(7):714-8.

CAIndexNames:

Urea, N-[6'-(2-hydroxy-2-methylpropoxy)-4-[(5-methyl-3-pyridinyl)oxy]][3,3'-bipyridin]-6-yl]-N'-methyl-

SMILES:

O=C(NC)NC1=CC(OC2=CC(C)=CN=C2)=C(C3=CC=C(OCC(C)(O)C)N=C3)C=N1

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

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