MK-0941 free base

Cat. No.: HY-19843A

CAS No.: 752240-01-0

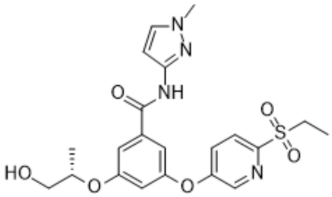
Molecular Formula: $C_{21}H_{24}N_4O_6S$

Molecular Weight: 460.5

Target: Glucokinase

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	MK-0941 free base is an orally active glucokinase activator, with EC_{50}s of 240 and 65 nM for recombinant human glucokinase in the presence of 2.5 and 10 mM glucose, respectively. MK-0941 free base exhibits strong glucose-lowering activity and is a potential therapeutic agent for treatment of type 2 diabetes[1][2].
IC_{50} & Target	Glucokinase[1][2].
In Vivo	MK-0941 free base (3 or 10 mg/kg, sing oral dose) treatment reduced blood glucose significantly in db/db diabetic mouse[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male db/db and db/+ (lean) mice (9-10 weeks of age, weighing 43-45 g) [1].
Dosage:	3 or 10 mg/kg.
Administration:	Oral gavage, single dose.
Result:	Resulted in significant reduction in blood glucose. These two doses lowered blood glucose similarly at 1 h after dosing, suggesting that saturation of effect was approached.

REFERENCES

[1]. Eiki J, et al. Pharmacokinetic and pharmacodynamic properties of the glucokinase activator MK-0941 in rodent models of type 2 diabetes and healthy dogs. Mol Pharmacol. 2011 Dec;80(6):1156-65.

[2]. Meininger GE, et al. Effects of MK-0941, a novel glucokinase activator, on glycemic control in insulin-treated patients with type 2 diabetes. Diabetes Care. 2011 Dec;34(12):2560-6.

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