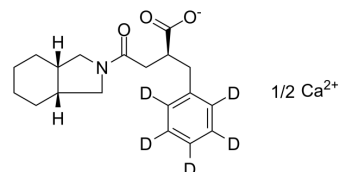


Mitiglinide-d5 calcium

Cat. No.:	HY-B0682S2
Molecular Formula:	C ₁₉ H ₁₉ D ₅ NO ₃ ·1/2Ca
Molecular Weight:	339.48
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Mitiglinide-d5 (calcium) is deuterium labeled Mitiglinide. Mitiglinide (KAD-1229), an insulinotropic agent, is an ATP-sensitive K ⁺ (KATP) channel antagonist. Mitiglinide is highly specific to the Kir6.2/SUR1 complex (the pancreatic beta-cell KATP channel). Mitiglinide can be used for the research of type 2 diabetes ^{[1][2]} .
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Kiyoshi Ichikawa, et al. Effect of KAD-1229, a novel hypoglycaemic agent, on plasma glucose levels after meal load in type 2 diabetic rats. *Clin Exp Pharmacol Physiol.* May-Jun 2002;29(5-6):423-7.
- [3]. Y Sunaga, et al. The effects of mitiglinide (KAD-1229), a new anti-diabetic drug, on ATP-sensitive K⁺ channels and insulin secretion: comparison with the sulfonylureas and nateglinide. *Eur J Pharmacol.* 2001 Nov 9;431(1):119-25.

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

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