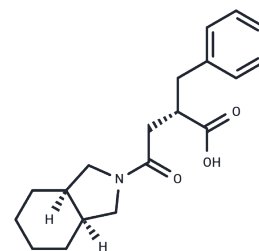


Mitiglinide

Chemical Properties

CAS No. :	145375-43-5
Formula:	C ₁₉ H ₂₅ NO ₃
Molecular Weight:	315.41
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	Mitiglinide (KAD-1229) is an insulinotropic agent that is an ATP-sensitive K ⁺ (K ATP) channel antagonist. Mitiglinide is highly specific to the Kir6.2/SUR1 complex (the pancreatic beta-cell K ATP channel). Mitiglinide is able to be used for the research of type 2 diabetes [1] [2].
Targets(IC50)	Others,Potassium Channel
In vitro	In COS-1 cells, Mitiglinide inhibits the Kir6.2/SUR1 channel currents in a dose-dependent manner (IC 50 of 100 nM) but does not significantly inhibit either Kir6.2/SUR2A or Kir6.2/SUR2B channel currents even at high doses (over 10 μM) [1].
In vivo	Mitiglinide, administered orally at doses ranging from 1 to 3 mg/kg, effectively reduces the postprandial elevation in plasma glucose levels and decreases the glucose area under the curve (AUC _{glucose}) for up to five hours following a meal [2]. This dose-dependent suppression of AUC _{glucose} was observed in an animal model involving pregnant Wistar rats aged 12 weeks, with dosages administered at 0.3 mg/kg, 1 mg/kg, and 3 mg/kg [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1705 mL	15.8524 mL	31.7048 mL
5 mM	0.6341 mL	3.1705 mL	6.341 mL
10 mM	0.317 mL	1.5852 mL	3.1705 mL
50 mM	0.0634 mL	0.317 mL	0.6341 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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