Purdue Bioscience

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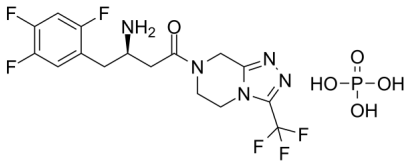
Data Sheet

Product Information

Catalog Number	BP12786
Product Name	Sitagliptin phosphate
Description	Sitagliptin phosphate is a dipeptidyl peptidase-4 (DPP4) inhibitor.
Targets&IC50	DPP-4:19 nM
In vitro	In vitro: Sitagliptin was a potent inhibitor for DPP-4 with an IC50 of 18 nM. Sitagliptin inhibited DPP-8 (IC50: 48 μM). Sitagliptin showed no effect on several related peptidases, including DPP-9, DPP-II, and aminopeptidase P .
In vivo	In free-fed Han-Wistar rats, the ED50 values ??for the inhibition of plasma DPP-4 activity by sitagliptin phosphate were calculated as 7 hours post-dose at 2.3 mg/kg and 24 hours post-dose at 30 mg/kg . A mouse model of streptozotocin-induced type 1 diabetes showed elevated plasma DPP-4 levels, which was significantly suppressed in mice on a sitagliptin phosphate diet. This is achieved through a positive effect on hyperglycemia regulation, possibly by prolonging islet graft survival. The plasma clearance and volume of distribution of sitagliptin phosphate in rats (40-48 mL/min/kg, 7-9 L/kg) were higher than those in dogs (9 mL/min/kg, 3 L/kg); its The half-life is shorter in rats, 2 hours in dogs and 4 hours in dogs.
Synonyms	Januvia, Sitagliptin (phosphate), MK-0431 phosphate
CAS No.	654671-78-0
Chemical Formula	C16H18F6N5O5P
Molecular Weight	505.314

Solubility	DMSO: 25 mg/mL(49.47 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Purdue Bioscience Inc.

750 50th St, Brooklyn, NY 11220, USA

https://www.purduebio.com

1-877.618.7311

info@purduebio.com

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