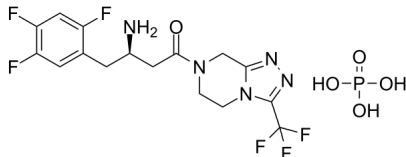


## Certificate of Analysis

Catalog Number	BP12786
Product Name	Sitagliptin phosphate

## Physical and Chemical Properties

Synonyms	Januvia, Sitagliptin (phosphate), MK-0431 phosphate
CAS No.	654671-78-0
Chemical Formula	C <sub>16</sub> H <sub>18</sub> F <sub>6</sub> N <sub>5</sub> O <sub>5</sub> P
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	

## Product Information

Description	Sitagliptin phosphate is a dipeptidyl peptidase-4 (DPP4) inhibitor.
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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 $\mu$ M). 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.

## Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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