

Vildagliptin dihydrate

Catalog No: tcsc0042208



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

2133364-01-7

Formula:

$C_{17}H_{29}N_3O_4$

Pathway:

Metabolic Enzyme/Protease

Target:

Dipeptidyl Peptidase

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

LAF237 dihydrate;NVP-LAF 237 dihydrate

Observed Molecular Weight:

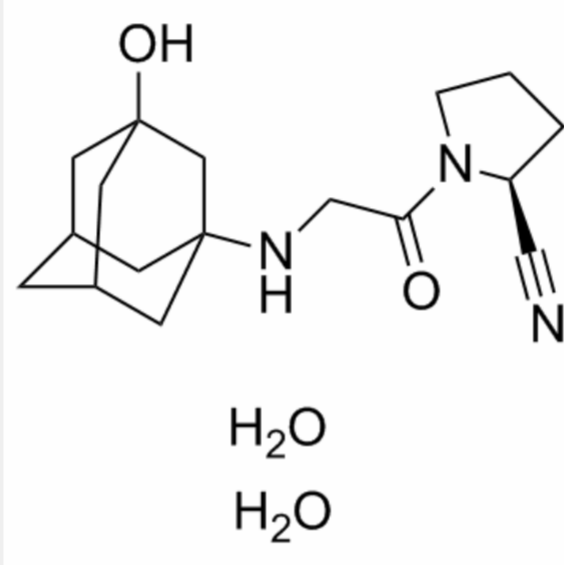
339.43

Product Description

Vildagliptin (LAF237 dihydrate;NVP-LAF 237 dihydrate) is a **dipeptidyl peptidase 4 (DPP4)** inhibitor that delays the degradation of glucagon-like peptide-1 (GLP-1).

IC50 & Target: Target: Dipeptidyl Peptidase 4 (DPP4)^[1]

In Vivo: Treatment of obese diabetic mice with 1 mg/kg/day Vildagliptin or with 10 mg/kg/day valsartan for 8 weeks increases pancreatic islet β -cell density and stimulates islet β -cell proliferation while preventing apoptosis and islet fibrosis and decreasing superoxide production and nitrotyrosine formation. The combination of both compounds significantly magnifies the beneficial effect of either monotherapy^[1]. Valsartan or Vildagliptin pretreatment significantly increases plasma GLP-1 expression, reduces apoptosis of endothelial cells isolated from diabetic mice aorta. The expression of NADPH oxidase subunits also significantly decreases resulting in decreased superoxide production and ICAM-1 (fold change: valsartan : 7.5 ± 0.7 , P[2]. Daily oral administration of Vildagliptin (5 mg/kg) alone or in combination with Pioglitazone (20 mg/kg) for 7 weeks significantly reduces blood glucose levels and HbA1c. It increases serum insulin levels and decreases serum glucagon. It also shows a strong anti-oxidant activity^[3].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!