Web: www.taiclone.com
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Vildagliptin

Catalog No: tcsc1465

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 500mg

Specifications

CAS No:
274901-16-5

Formula:
$C_{17}H_{25}N_3O_2$

Pathway:
Metabolic Enzyme/Protease

Target:
Dipeptidyl Peptidase

Purity / Grade:
>98%

Solubility:
H2O : 50 mg/mL (164.80 mM; Need ultrasonic)

Alternative Names:
LAF237;NVP-LAF 237

Observed Molecular Weight:
303.4

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Product Description

Vildagliptin (LAF-237; NVP-LAF 237) inhibits DPP-4 with IC50 of 2.3 nM.

IC50 Value: 2.3 nM[1]

Target: DPP-4

in vitro: Vildagliptin is an N-substituted glycyl-2-cyanopyrrolidine (figure 2). It is a potent competitive and reversible inhibitor of human and rodent DPP-4 in vitro, with a median inhibitory concentration (IC50) ~2-3 nmol/L. Importantly, vildagliptin inhibits DPP-4 with high specificity relative to other similar peptidases where its IC50 exceeds 200 mol/L [1].

in vivo: Compared to age-, gender-, BMI-matched subjects with normal renal function, the mean AUC of vildagliptin after 14 days in patients with mild, moderate, and severe RI increased by 40%, 71%, and 100%, respectively [2]. The treatment was effective in modulating stress in pancreatic tissue, both by reducing levels of stress markers as well as by increasing activity of SOD and catalase. After analyzing the pancreatic histology, we found that vildagliptin was also able to preserve islets and pancreatic β-cells, especially at the concentration of 5 mg/kg [3].

Clinical trial: FDA approved drug.