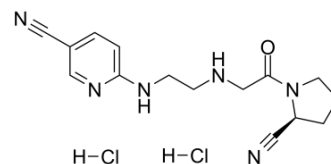


NVP-DPP728 dihydrochloride

Cat. No.:	HY-14293
CAS No.:	207556-62-5
Molecular Formula:	C ₁₅ H ₂₀ Cl ₂ N ₆ O
Molecular Weight:	371.26
Target:	Dipeptidyl Peptidase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	NVP-DPP728 dihydrochloride is a potent, selective and orally active dipeptidyl peptidase IV (DPP-IV) inhibitor with a K _i of 11 nM. NVP-DPP728 dihydrochloride can be used for the research of diabetes mellitus ^{[1][2]} .								
IC₅₀ & Target	Ki: 11 nM (DPP-IV) ^[1]								
In Vitro	NVPDPP728 inhibits human and rat plasma DPP-IV (IC ₅₀ s: 5-10 nM) with >15 000-fold selectivity relative to DPP-II and a range of proline-cleaving proteases ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
In Vivo	NVP-DPP728 (3.72 mg/kg; p.o.) inhibits DPP-IV and improves insulin secretion and glucose tolerance, probably through augmentation of the effects of endogenous GLP-1 ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="1"> <tr> <td>Animal Model:</td> <td>Obese (fa/fa) and lean (FA/?) Zucker rats^[2]</td> </tr> <tr> <td>Dosage:</td> <td>3.72 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Oral administration</td> </tr> <tr> <td>Result:</td> <td>Led to inhibition of plasma DPP-IV activity.</td> </tr> </table>	Animal Model:	Obese (fa/fa) and lean (FA/?) Zucker rats ^[2]	Dosage:	3.72 mg/kg	Administration:	Oral administration	Result:	Led to inhibition of plasma DPP-IV activity.
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Result:	Led to inhibition of plasma DPP-IV activity.								

REFERENCES

[1]. T E Hughes, et al. NVP-DPP728 (1-[[[2-[(5-cyanopyridin-2-yl)amino]ethyl]amino]acetyl]-2-cyano-(S)- pyrrolidine), a slow-binding inhibitor of dipeptidyl peptidase IV. *Biochemistry*. 1999 Sep 7;38(36):11597-603.

[2]. B Balkan, et al. Inhibition of dipeptidyl peptidase IV with NVP-DPP728 increases plasma GLP-1 (7-36 amide) concentrations and improves oral glucose tolerance in obese Zucker rats. *Diabetologia*. 1999 Nov;42(11):1324-31.

Caution: Product has not been fully validated for medical applications. For research use only.

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