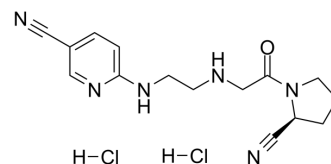


## NVP-DPP728 dihydrochloride

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



### BIOLOGICAL ACTIVITY

<b>Description</b>	NVP-DPP728 dihydrochloride is a potent, selective and orally active dipeptidyl peptidase IV (DPP-IV) inhibitor with a K <sub>i</sub> of 11 nM. NVP-DPP728 dihydrochloride can be used for the research of diabetes mellitus <sup>[1][2]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	Ki: 11 nM (DPP-IV) <sup>[1]</sup>								
<b>In Vitro</b>	NVPDPP728 inhibits human and rat plasma DPP-IV (IC <sub>50</sub> s: 5-10 nM) with >15 000-fold selectivity relative to DPP-II and a range of proline-cleaving proteases <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
<b>In Vivo</b>	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 <sup>[2]</sup> . 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<sup>[2]</sup></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 <sup>[2]</sup>	Dosage:	3.72 mg/kg	Administration:	Oral administration	Result:	Led to inhibition of plasma DPP-IV activity.
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Dosage:	3.72 mg/kg								
Administration:	Oral administration								
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.

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

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