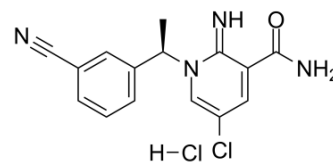


ADRA1D receptor agonist 1

Cat. No.:	HY-135270
CAS No.:	1191908-14-1
Molecular Formula:	C ₁₅ H ₁₄ Cl ₂ N ₄ O
Molecular Weight:	337.2
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	ADRA1D receptor agonist 1 (compound (R)-9S) is a potent, selective and orally active α_{1D} adrenoceptor antagonist, with a K_i of 1.6 nM ^[1] .								
IC₅₀ & Target	Ki: 1.6 nM (α_{1D} adrenoceptor) ^[1]								
In Vitro	ADRA1D receptor agonist 1 shows low hERG inhibition ^[1] . ADRA1D receptor agonist 1 exhibits higher selectivity for α_{1D} -AR over α_{1A} - and α_{1B} -ARs ^[1] .								
In Vivo	ADRA1D receptor agonist 1 (4.4 μ g/kg; i.v.) dose-dependently decreases the non-voiding bladder contractions during the urinary storage phase in rats with BOO ^[1] . <table border="1" data-bbox="345 1186 1515 1459"> <tr> <td>Animal Model:</td> <td>Rat with bladder outlet obstruction (BOO)^[1]</td> </tr> <tr> <td>Dosage:</td> <td>4.4 μg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intravenous injection</td> </tr> <tr> <td>Result:</td> <td>Dose-dependently decreased the non-voiding bladder contractions during urinary storage phase in rats with BOO.</td> </tr> </table>	Animal Model:	Rat with bladder outlet obstruction (BOO) ^[1]	Dosage:	4.4 μ g/kg	Administration:	Intravenous injection	Result:	Dose-dependently decreased the non-voiding bladder contractions during urinary storage phase in rats with BOO.
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REFERENCES

[1]. Sakauchi N, et al. Discovery of 5-Chloro-1-(5-chloro-2-(methylsulfonyl)benzyl)-2-imino-1,2-dihydropyridine-3-carboxamide (TAK-259) as a Novel, Selective, and Orally Active α_{1D} Adrenoceptor Antagonist with Antiurinary Frequency Effects: Reducing Human Ether-a-go-go-Related Gene (hERG) Liabilities. J Med Chem. 2016 Apr 14;59(7):2989-3002.

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

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