

## ADRA1D receptor antagonist 1 HCl

## Chemical Properties

CAS No. : 1191908-14-1

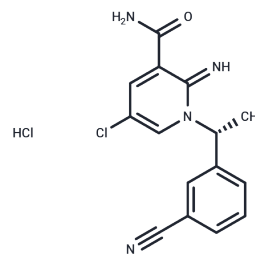
Formula: C<sub>15</sub>H<sub>14</sub>Cl<sub>2</sub>N<sub>4</sub>O

Molecular Weight: 337.2

Storage: Keep away from direct sunlight, Keep away from moisture

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	ADRA1D receptor antagonist 1 HCl is an orally active, potent and selective $\alpha$ 1D adrenergic receptor antagonist (K <sub>i</sub> : 1.6 nM) with potential antiproliferative activity.
Targets(IC <sub>50</sub> )	Adrenergic Receptor
In vitro	ADRA1D receptor antagonist 1 exhibits low hERG inhibition and higher selectivity for $\alpha$ 1D-AR over $\alpha$ 1A- and $\alpha$ 1B-ARs, without affecting $\alpha$ 1A- and $\alpha$ 1B-ARs[1].
In vivo	In the rat model of bladder outlet obstruction (BOO), ADRA1D receptor antagonist 1 (4.4 $\mu$ g/kg; intravenous injection) dose-dependently decreased the occurrence of non-voiding bladder contractions during the urinary storage phase[1].
Animal Research	Animal Model: Rat with bladder outlet obstruction (BOO). Dosage: 4.4 $\mu$ g/kg. Administration: Intravenous injection

## Solubility Information

Solubility	DMSO: 80 mg/mL (237.25 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.9656 mL	14.828 mL	29.656 mL
5 mM	0.5931 mL	2.9656 mL	5.9312 mL
10 mM	0.2966 mL	1.4828 mL	2.9656 mL
50 mM	0.0593 mL	0.2966 mL	0.5931 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

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  $\alpha$ 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.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481