# ZD 7155(hydrochloride)

**Cat. No.:** HY-102093

**CAS No.:** 146709-78-6

**Molecular Formula:** $C_{26}H_{27}ClN_6O$

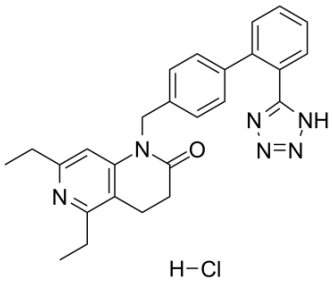
**Molecular Weight:** 474.99

**Target:** Angiotensin Receptor

**Pathway:** GPCR/G Protein

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent | -80°C | 6 months |
| | -20°C | 1 month |




## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 250 mg/mL (526.33 mM; Need ultrasonic)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.1053 mL | 10.5265 mL | 21.0531 mL |
| 5 mM | 0.4211 mL | 2.1053 mL | 4.2106 mL |
| 10 mM | 0.2105 mL | 1.0527 mL | 2.1053 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.38 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.38 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.38 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

ZD 7155 hydrochloride is an angiotensin II receptor type 1 (AT1 receptor) antagonist.

**$IC_{50}$ & Target**

Target: AT1 receptor[1]

**In Vivo**

In conscious SD rats, ZD 7155 and losartan behave as competitive antagonists and the pressor response curve to angiotensin II is shifted to the right. Experiments in conscious SD rats also show that ZD 7155 is approximately ten times as potent as losartan in suppressing the angiotensin II-induced pressor response (240 ng/kg; 10 min infusion). In addition, experiments

with conscious rats demonstrate that ZD 7155 could suppress the angiotensin II-induced pressor response for approximately 24 h when ZD 7155 is administered intravenously in a 1.082 μmol/kg bolus dose and angiotensin II is given at 240 ng/kg (in a 10-min infusion). Experiments in conscious SHRs using ZD 7155 (1.082 mumol/kg) and losartan (6.495 mumol/kg) as intravenous boluses indicate that both ZD 7155 and the reference compound losartan exhibit a significant antihypertensive effect[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## PROTOCOL

**Animal Administration [1]**

Rats[1]

SpragueDawley rat are used. Saline is used as control for the anpiotensin I1 type 1 receptor antagonists. ZD 7155 is given intravenously in a bolus dose of 1.082 pmol/kg, and losartan in the doses 2.165 and 6.495 pmol/kg[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Junggren IL, et al. Comparative cardiovascular effects of the angiotensin II type 1 receptor antagonists ZD 7155 and losartan in the rat. J Pharm Pharmacol. 1996 Aug;48(8):829-33.



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