# Carbonic anhydrase inhibitor 2

**Cat. No.:** HY-142849

**CAS No.:** 2758231-43-3

**Molecular Formula:** $C_{12}H_{16}N_4O_6S$

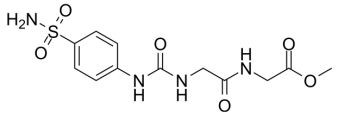
**Molecular Weight:** 344.34

**Target:** Carbonic Anhydrase

**Pathway:** Metabolic Enzyme/Protease

**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 : 20 mg/mL (58.08 mM; ultrasonic and warming and adjust pH to 4 with HCl and heat to 80°C)

DMSO : 20 mg/mL (58.08 mM; ultrasonic and warming and adjust pH to 5 with 1M HCl and heat to 80°C)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.9041 mL | 14.5205 mL | 29.0411 mL |
| 5 mM | 0.5808 mL | 2.9041 mL | 5.8082 mL |
| 10 mM | 0.2904 mL | 1.4521 mL | 2.9041 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 mg/mL (5.81 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2 mg/mL (5.81 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2 mg/mL (5.81 mM); Clear solution; Need ultrasonic

## BIOLOGICAL ACTIVITY

**Description**

Carbonic anhydrase inhibitor 1 (compound 7c) is a carbonic anhydrase II inhibitor. Carbonic anhydrase inhibitor 3 reduces the intraocular pressure in glaucomatous rabbits[1].

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

CA

## REFERENCES

[1]. Gioele Vannozzi, et al. One-Pot Procedure for the Synthesis of Asymmetric Substituted Ureido Benzene Sulfonamides as Effective Inhibitors of Carbonic Anhydrase Enzymes. J Med Chem. 2022 Jan 13;65(1):824-837.



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