# Thioproperazine

**Cat. No.:** HY-A0151

**CAS No.:** 316-81-4

**Molecular Formula:** $C_{22}H_{30}N_4O_2S_2$

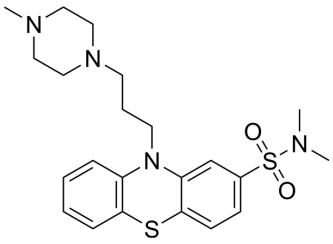
**Molecular Weight:** 446.63

**Target:** Dopamine Receptor

**Pathway:** GPCR/G Protein; Neuronal Signaling

**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 : 12.5 mg/mL (27.99 mM; ultrasonic and warming and heat to 70°C)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.2390 mL | 11.1949 mL | 22.3899 mL |
| | 5 mM | 0.4478 mL | 2.2390 mL | 4.4780 mL |
| | 10 mM | 0.2239 mL | 1.1195 mL | 2.2390 mL |

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

## BIOLOGICAL ACTIVITY

**Description**

Thioproperazine (RP 7843) is an orally active antipsychotic agent with calming, antiemetic activity. Thioproperazine is effective in promoting the release of dopamine in rat striatum. Thioproperazine can be used in studies of schizophrenia and bipolar disorder[1].

**In Vivo**

Thioproperazine (5 mg/kg; i.p.; single) increases accumulation of dopamine in rat striatum[1].

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

| | |
|---|---|
| Animal Model: | Male charles river rats (200-250 g)[1]. |
| Dosage: | 5 mg/kg |
| Administration: | Intraperitoneal injection; single. |
| Result: | Markedly decreased dopamine levels (26%), and accelerated synthesis and utilization of dopamine in the striatum (dopamine specific activity was enhanced 250%). |

## REFERENCES

[1]. Cheramy A, et al. Increased release of dopane from striatal dopaminergic terminals in the rat after treatment with a neuroleptic: thioproperazine. Eur J Pharmacol. 1970 May;10(2):206-14.



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