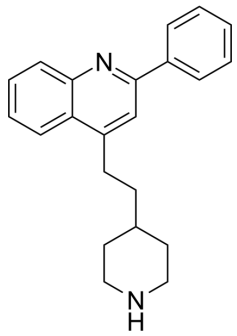
# Pipequaline



**Cat. No.:** HY-100140

**CAS No.:** 77472-98-1

**Molecular Formula:** $C_{22}H_{24}N_2$

**Molecular Weight:** 316.44

**Target:** GABA Receptor

**Pathway:** Membrane Transporter/Ion Channel; Neuronal Signaling

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent | -80°C | 2 years |
| | -20°C | 1 year |

## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : ≥ 32 mg/mL (101.13 mM)

* "≥" means soluble, but saturation unknown.

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 3.1602 mL | 15.8008 mL | 31.6016 mL |
| 5 mM | 0.6320 mL | 3.1602 mL | 6.3203 mL |
| 10 mM | 0.3160 mL | 1.5801 mL | 3.1602 mL |

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

## BIOLOGICAL ACTIVITY

**Description**

Pipequaline (PK 8165) is a partial benzodiazepine receptor agonist with anxiolytic activity[1][2].

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

Benzodiazepine receptor[1]

**In Vivo**

Intravenously administered pipequaline exerts a partial suppression of activations by kainate, glutamate and acetylcholine. Microiontophoretic applications of pipequaline reduces the neuronal activation by kainate[2]. Pipequaline produces dose-related decreases in motor activity. Pipequaline produces significant dose-related decreases in the number of head-dips made[3].

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

## PROTOCOL

| | |
|---|---|
| **Animal Administration** [3] | Rats: Pipequaline is dissolved in water to give injection volumes of 2 mL/kg. Rats are injected with 5, 10, and 50 mg/kg pipequaline. Infrared cells in the walls of the box provided automated measures of locomotor activity and rearing, respectively[3].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## REFERENCES


[1]. Bradwejn J, et al. Effects of PK 8165, a partial benzodiazepine receptor agonist, on cholecystokinin-inducedactivation of hippocampal pyramidal neurons: a microiontophoretic study in the rat. Eur J Pharmacol. 1985 Jun 19;112(3):415-8.

[2]. Debonnel G, et al. Pipequaline acts as a partial agonist of benzodiazepine receptors: an electrophysiological study in the hippocampus of the rat. Neuropharmacology. 1987 Sep;26(9):1337-42.





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