# Product data sheet

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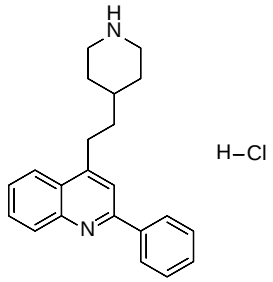
|---|---|
| MedKoo Cat#: 329522<br>Name: Pipequaline HCl<br>CAS: 80221-58-5 (HCl)<br>Chemical Formula: $C_{22}H_{25}ClN_2$<br>Exact Mass: 316.1939<br>Molecular Weight: 352.906 |  |
| Product supplied as: | Powder |
| Purity (by HPLC): | ≥ 98% |
| Shipping conditions | Ambient temperature |
| Storage conditions: | Powder: -20°C 3 years; 4°C 2 years. |
| | In solvent: -80°C 3 months; -20°C 2 weeks. |

**1. Product description:**

Pipequaline, also known as PK-8165, is an anxiolytic drug that was never marketed. It possesses a novel chemical structure that is not closely related to other drugs of this type. The drug has a similar pharmacological profile to the benzodiazepine family of drugs, but with mainly anxiolytic properties and very little sedative, amnestic or anticonvulsant effects, and so is classified as a nonbenzodiazepine anxiolytic. Pipequaline acts as a non-selective GABAA receptor partial agonist. While its profile of anxiolytic effects without sedation would appear to have potential medical applications, pipequaline has never been developed for medical use and is currently only used in scientific research.

**2. CoA, QC data, SDS, and handling instruction**

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

**3. Solubility data**

| Solvent | Max Conc. mg/mL | Max Conc. mM |
|---|---|---|
| TBD | TBD | TBD |

**4. Stock solution preparation table:**

| **Concentration / Solvent Volume / Mass** | **1 mg** | **5 mg** | **10 mg** |
|---|---|---|---|
| 1 mM | 2.83 mL | 14.17 mL | 28.34 mL |
| 5 mM | 0.57 mL | 2.83 mL | 5.67 mL |
| 10 mM | 0.28 mL | 1.42 mL | 2.83 mL |
| 50 mM | 0.06 mL | 0.28 mL | 0.57 mL |

**5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator**

Please refer the product web page under section of “Calculator”

**6. Recommended literature which reported protocols for in vitro and in vivo study**

In vitro study

TBD

In vivo study

1. Debonnel G, de Montigny C. 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. doi: 10.1016/0028-3908(87)90096-7. PMID: 2823163.
2. Bradwejn J, De Montigny C. Effects of PK 8165, a partial benzodiazepine receptor agonist, on cholecystokinin-induced activation of hippocampal pyramidal neurons: a microiontophoretic study in the rat. Eur J Pharmacol. 1985 Jun 19;112(3):415-8. doi: 10.1016/0014-2999(85)90790-3. PMID: 2990972.

**7. Bioactivity**

Biological target:

Pipequaline hydrochloride (PK-8165 hydrochloride) is a partial benzodiazepine receptor agonist with anxiolytic activity.

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In vitro activity

TBD

In vivo activity

PK 8165, a ligand of BZD receptors, is an anxiolytic devoid of sedative and anticonvulsant effects. PK 8165, applied microiontophoretically or administered i.v. at low doses, suppressed CCK-8S-induced activation of rat hippocampal pyramidal neurons, whereas, at high doses it antagonized the effect of microiontophoretic applications of flurazepam. These results indicate that PK 8165 acts as a mixed agonist-antagonist at BZD receptors and suggest that the suppression of CCK-8S-induced activation by BZD might be related to their anxiolytic property rather than to their sedative or anticonvulsant activity.

Reference: Eur J Pharmacol. 1985 Jun 19;112(3):415-8. https://pubmed.ncbi.nlm.nih.gov/2990972/