bio-techne
TOCRIS

Print Date: Mar 12th 2026

Certificate of Analysis

www.tocris.com

Product Name: **PIPE 3297 dihydrochloride** **Catalog No.: 8135** **Batch No.: 1**

IUPAC Name: 3-(2-((1-Benzylazetidin-3-yl)(cyclobutylmethyl)amino)ethyl)phenol dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

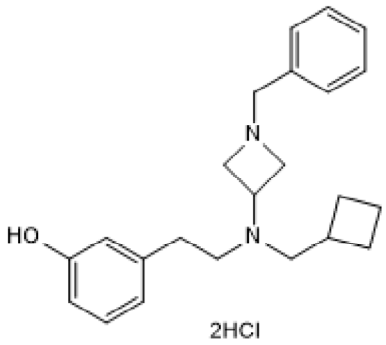
Batch Molecular Weight: 441.44

Physical Appearance: White solid

Solubility: DMSO to 100 mM
water to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.58	7.76	6.35
Found	61.98	7.76	6.34

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Description:

PIPE 3297 dihydrochloride is a potent and selective agonist of κ opioid receptor (KOR). It potently activates G-protein signaling (GTPγS EC_{50} = 1.1 nM, 91% E_{max}). It displays 40- and 600- fold selectivity over MOR and DOR respectively. PIPE 3297 dihydrochloride induces differentiation of oligodendrocyte progenitor cells (OPC) in vitro and in vivo, leading to significant increase of mature oligodendrocytes (OL) in healthy mice and inducing myelination. It also reduces disease score in mouse experimental autoimmune encephalomyelitis (EAE) model. Exhibits low β-arrestin2 recruitment activity, avoding the sedating effects typicall... Please see product specific page on www.tocris.com for full description.

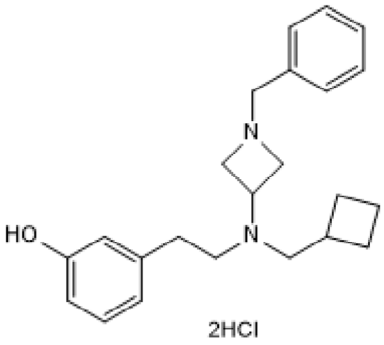
Physical and Chemical Properties:

Batch Molecular Weight: 441.44

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM
water to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Schrader *et al* (2024) Identification and in vivo evaluation of myelination agent PIPE-3297, a selective kappa opioid receptor agonist devoid of β-Arrestin-2 recruitment efficacy. ACS Chem.Neurosci. ***15*** 685. PMID: 38265210.