

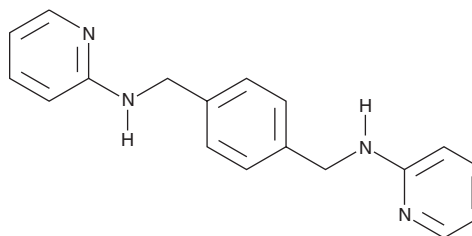
PRODUCT INFORMATION



WZ811

Item No. 13639

CAS Registry No.: 55778-02-4
Formal Name: N¹,N⁴-di-2-pyridinyl-1,4-benzenedimethanamine
MF: C₁₈H₁₈N₄
FW: 290.4
Purity: ≥95%
UV/Vis.: λ_{max}: 245, 305 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

WZ811 is supplied as a crystalline solid. A stock solution may be made by dissolving the WZ811 in the solvent of choice, which should be purged with an inert gas. WZ811 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of WZ811 in these solvents is approximately 10 and 3 mg/ml, respectively.

WZ811 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, WZ811 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. WZ811 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The CXC chemokine receptor-4 (CXCR4) is a G protein-coupled receptor that is specific for stromal cell-derived factor-1 (SDF-1/CXCL12). Activation of CXCR4 promotes homing of hematopoietic stem cells, chemotaxis and quiescence of lymphocytes, and growth and metastasis of certain cancer cell types. Moreover, CXCR4 on CD4⁺ T-cells is used by CXCR4-selective HIV forms as a gateway for T-cell infection. WZ811 is a potent inhibitor of binding of an SDF-1 peptide mimic to CXCR4 (EC₅₀ = 0.3 nM).¹ It prevents SDF-1/CXCL12-mediated modulation of cAMP (EC₅₀ = 1.2 nM) in cells and blocks SDF-1-induced Matrigel™ invasion by MDA-MB-231 human breast adenocarcinoma cells (EC₅₀ = 5.2 nM).¹ The effectiveness of WZ811 in animals remains to be elucidated.

Reference

1. Zhan, W., Liang, Z., Zhu, A., *et al.* Discovery of small molecule CXCR4 antagonists. *J. Med. Chem.* **50**(23), 5655-5664 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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