

PRODUCT INFORMATION



MZ1

Item No. 21622

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CAS Registry No.: 1797406-69-9
Formal Name: (4R)-N-[14-[(6S)-4-(4-chlorophenyl)-2,3,9-trimethyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepin-6-yl]-1,13-dioxo-3,6,9-trioxa-12-azatetradec-1-yl]-3-methyl-L-valyl-4-hydroxy-N-[[4-(4-methyl-5-thiazolyl)phenyl]methyl]-L-prolinamide

MF: C₄₉H₆₀ClN₉O₈S₂

FW: 1,002.6

Purity: ≥95%

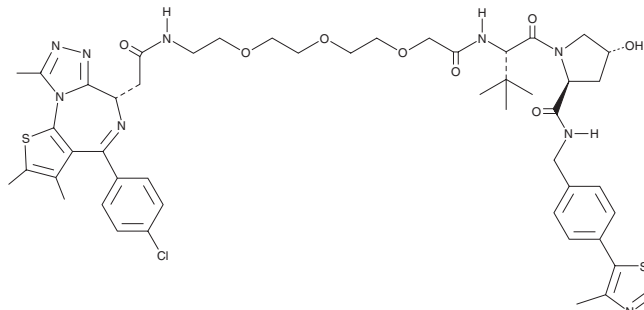
UV/Vis.: λ_{max}: 256 nm

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

MZ1 is supplied as a crystalline solid. A stock solution may be made by dissolving the MZ1 in the solvent of choice, which should be purged with an inert gas. MZ1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of MZ1 in these solvents is approximately 30 mg/ml.

MZ1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MZ1 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. MZ1 has a solubility of approximately 0.12 mg/ml in a 1:7 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MZ1 is a hybrid compound that drives the selective proteasomal degradation of bromodomain-containing protein 4 (BRD4).¹ It is characterized as a proteolysis-targeting chimera (PROTAC) and contains JQ-1, which binds bromo- and extra-terminal (BET) proteins, linked to a ligand for the E3 ubiquitin ligase VHL. MZ1 induces the selective degradation of BRD4 in HeLa cells when used at 0.1-0.5 μM.¹ At concentrations of 2-10 μM, MZ1 causes the removal of BRD2, BRD3, and BRD4.¹ BRD protein removal is evident within four hours of adding MZ1 and persists for at least 48 hours, unless MZ1 is removed.¹

Reference

1. Zengerle, M., Chan, K.-H., and Ciulli, A. Selective small molecule induced degradation of the BET bromodomain protein BRD4. *ACS Chem. Biol.* **10**(8), 1770-1777 (2015).

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.

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