

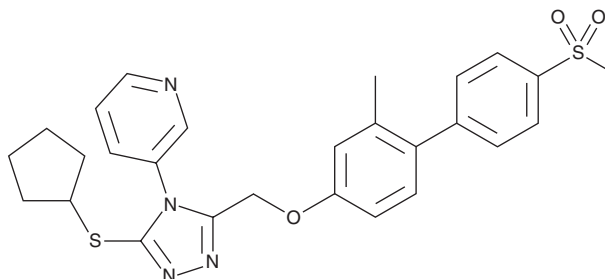
PRODUCT INFORMATION



NMS-873

Item No. 17674

CAS Registry No.: 1418013-75-8
Formal Name: 3-[3-(cyclopentylthio)-5-[[[2-methyl-4'-(methylsulfonyl)[1,1'-biphenyl]-4-yl]oxy]methyl]-4H-1,2,4-triazol-4-yl]-pyridine
Synonym: VCP Inhibitor III
MF: C₂₇H₂₈N₄O₃S₂
FW: 520.7
Purity: ≥98%
UV/Vis.: λ_{max}: 266 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

NMS-873 is supplied as a crystalline solid. A stock solution may be made by dissolving the NMS-873 in the solvent of choice, which should be purged with an inert gas. NMS-873 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NMS-873 in ethanol is approximately 0.5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

NMS-873 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NMS-873 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. NMS-873 has a solubility of approximately 0.25 mg/ml in a 1:3 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 p97 AAA (ATPase associated with diverse cellular activities) is a ubiquitin-selective chaperone known to play a critical role in the degradation of misfolded membrane and secretory proteins and has been linked to various cellular processes that require unfolding and disassembly of protein complexes.¹ Valosin-containing protein (VCP), also known as VCP/p97, is an AAA ATPase family member that serves as an integral component of the ubiquitin fusion degradation pathway and is overexpressed in many tumor types. NMS-873 is a VCP inhibitor (IC₅₀ = 24 nM) that demonstrates potent selectivity for VCP/p97 compared to a panel of other AAA ATPases, Hsp90, and 53 additional analyzed kinases (IC₅₀s >10 μM).² It has been shown to inhibit the proliferation of HCT116 cancer cells with an IC₅₀ value of 380 nM.²

References

1. Chou, T.F. and Deshaies, R.J. Development of p97 AAA ATPase inhibitors. *Autophagy* **7**(9), 1091-1092 (2011).
2. Polucci, P., Magnaghi, P., Angiolini, M., et al. Alkylsulfanyl-1,2,4-triazoles, a new class of allosteric valosine containing protein inhibitors. Synthesis and structure-activity relationships. *J. Med. Chem.* **56**(2), 437-450 (2013).

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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