



Certificate of Analysis

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Product Name: Capzimin dimer Catalog No.: 6781 Batch No.: 1

CAS Number: 2084868-04-0

IUPAC Name: 8,8'-Dithiobis[*N*-[2-(2-thiazolyl)ethyl]-3-quinolinecarboxamide]

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{30}H_{24}N_6O_2S_4.\frac{1}{4}H_2O$

Batch Molecular Weight: 633.3

Physical Appearance: White solid

Solubility: DMSO to 100 mM Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 56.9 3.9 13.27

Found 56.81 3.8 13.17



Product Information

Print Date: Jul 8th 2022

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Description:

Capzimin dimer is a specific inhibitor of proteasome isopeptidase Rpn11 (IC $_{50}$ = 2.1 μ M and 3.8 μ M, in 293T and A549 cell lines, respectively). It exhibits 80-fold selectivity for Rpn11 over Csn5, ten-fold over AMSH and six-fold over BRCC36 (IC $_{50}$ = 30 μ M, 4.5 μ M, and 2.3 μ M, respectively). Capzimin dimer blocks proliferation of cancer cells.

Physical and Chemical Properties:

Batch Molecular Formula: C₃₀H₂₄N₆O₂S₄.½H₂O

Batch Molecular Weight: 633.3 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 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. Our standard recommendations are:

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:

Li *et al* (2017) Capzimin is a potent and specific inhibitor of proteasome isopeptidase Rpn11. Nat.Chem.Biol. *13* 486. PMID: 28244987. **Perez** *et al* (2017) Discovery of an inhibitor of the proteasome subunit Rpn11. J.Med.Chem. *60* 1343. PMID: 28191850.

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