Print Date: Jun 28th 2023

Certificate of Analysis

www.tocris.com

Product Name: **MM 102** **Catalog No.: 5307** **Batch No.: 4**

CAS Number: 1883545-52-5

IUPAC Name: 1-[[(2*S*)-5-[(Aminoiminomethyl)amino]-2-[[2-ethyl-2-[(2-methyl-1-oxopropyl)amino]-1-oxobutyl]amino]-1-oxopentyl]amino]-*N*-[bis(4-fluorophenyl)methyl]-cyclopentanecarboxamide trifluoroacetate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{35}H_{49}F_2N_7O_4.CF_3CO_2H.$

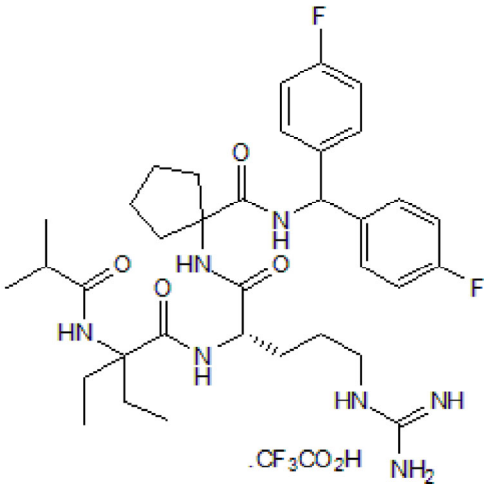
Batch Molecular Weight: 783.83

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.2% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

MM 102 is a potent WDR5/MLL interaction inhibitor (IC_{50} = 2.4 nM). Inhibits MLL1 methyltransferase activity and MLL-1-induced HoxA9 and Meis-1 gene expression in leukemia cells expressing the MLL1-AF9 fusion gene. Also inhibits cell growth and induces apoptosis in leukemia cells harbouring MLL1 fusion proteins.

Physical and Chemical Properties:

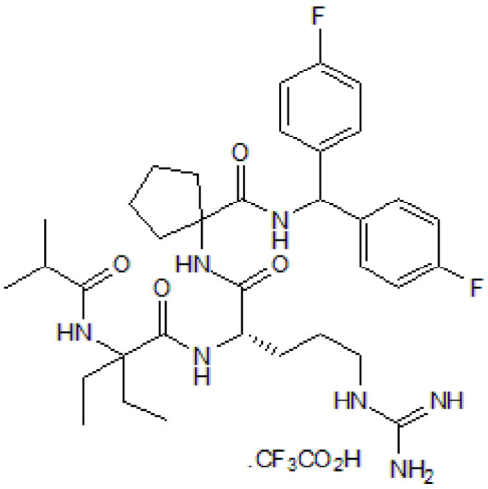
Batch Molecular Formula: $C_{35}H_{49}F_2N_7O_4.CF_3CO_2H$.

Batch Molecular Weight: 783.83

Physical Appearance: White solid

Minimum Purity: ≥95%

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. *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:

Karatas *et al* (2013) High-affinity, small-molecule peptidomimetic inhibitors of MLL1/WDR5 protein-protein interaction. J.Am.Chem.Soc. ***135*** 669. PMID: 23210835.