**PRODUCT INFORMATION**

**MM-102**  
Item No. 17699

**CAS Registry No.:** 1417329-24-8  
**Formal Name:** 1-[(2S)-5-[(aminoiminomethyl)amino]-2-[(2-ethyl-2-[[2-methyl-1-oxopropyl]amino]-1-oxobutyl]amino]-1-oxopentyl]amino]-N-[bis(4-fluorophenyl)methyl]-cyclopentanecarboxamide

**MF:** C$_{35}$H$_{49}$F$_{2}$N$_{7}$O$_{4}$  
**FW:** 669.8  
**Purity:** ≥ 98%  
**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**

MM-102 is supplied as a crystalline solid. A stock solution may be made by dissolving the MM-102 in the solvent of choice, which should be purged with an inert gas. MM-102 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MM-102 in these solvents is approximately 20, 25, and 30 mg/ml, respectively.

MM-102 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MM-102 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MM-102 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

**Description**

WD-repeat protein 5 (WDR5) is a scaffold protein commonly involved in the formation of nucleosome-modifying protein complexes with histones.$^1$ It serves as a component of a mixed-lineage leukemia (MLL) methyltransferase complex that targets histone 3 at lysine 4 to upregulate transcription.$^2$ MM-102 is a potent WDR5/MLL interaction inhibitor (IC$_{50}$ = 2.4 nM).$^3$ It has been shown to block MLL1 methyltransferase activity, reducing the expression of HoxA9 and Meis-1 genes, which are both critical MLL1 target genes in MLL1 fusion protein-mediated leukemogenesis.$^3$ MM-102 can also inhibit cell growth and induce apoptosis in leukemia cells harboring MLL1 fusion proteins.$^3$

**References**