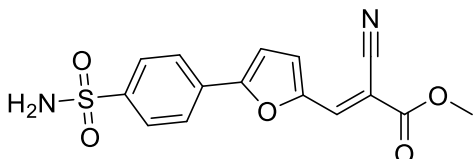


Product data sheet



MedKoo Cat#: 565617 Name: CCI-006 CAS#: 69563-88-8 Chemical Formula: C ₁₅ H ₁₂ N ₂ O ₅ S Exact Mass: 332.0467 Molecular Weight: 332.33	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

CCI-006 is a novel inhibitor of mll-rearranged and calm-af10 translocated leukemias, inhibiting mitochondrial respiration and inducing mitochondrial membrane depolarization and apoptosis in a subset (7/11, 64%) of mll-rearranged leukemia cell lines within a few hours of treatment.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	83.33	250.74

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.01 mL	15.05 mL	30.09 mL
5 mM	0.60 mL	3.01 mL	6.02 mL
10 mM	0.30 mL	1.50 mL	3.01 mL
50 mM	0.06 mL	0.30 mL	0.60 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Somers K, Wen VW, Middlemiss SMC, Osborne B, Forgham H, Jung M, Karsa M, Clifton M, Bongers A, Gao J, Mayoh C, Raoufi-Rad N, Kusnadi EP, Hannan KM, Scott DA, Kwek A, Liu B, Flemming C, Chudakova DA, Pandher R, Failes TW, Lim J, Angeli A, Osterman AL, Imamura T, Kees UR, Supuran CT, Pearson RB, Hannan RD, Davis TP, McCarroll J, Kavallaris M, Turner N, Gudkov AV, Haber M, Norris MD, Henderson MJ. A novel small molecule that kills a subset of MLL-rearranged leukemia cells by inducing mitochondrial dysfunction. *Oncogene*. 2019 May;38(20):3824-3842. doi: 10.1038/s41388-018-0666-5. Epub 2019 Jan 22. PMID: 30670779; PMCID: PMC6756102.

In vivo study

TBD

7. Bioactivity

Biological target:

CCI-006 is a selective inhibitor and chemosensitizer of MLL-rearranged leukemia cells, by inhibits mitochondrial respiration resulting in insurmountable mitochondrial depolarization and a pro-apoptotic unfolded protein response (UPR) in a subset of MLL-r leukemia cells.

Product data sheet



In vitro activity

A screening method optimized to discover cytotoxic compounds selective for MLL-rearranged leukemia identified CCI-006 as a novel inhibitor of MLL-rearranged and CALM-AF10 translocated leukemias that share common leukemogenic pathways. CCI-006 inhibited mitochondrial respiration and induced mitochondrial membrane depolarization and apoptosis in a subset (7/11, 64%) of MLL-rearranged leukemia cell lines within a few hours of treatment. The unresponsive MLL-rearranged leukemia cells did not undergo mitochondrial membrane depolarization or apoptosis despite a similar attenuation of mitochondrial respiration by the compound. In comparison to the sensitive cells, the unresponsive MLL-rearranged leukemia cells were characterized by a more glycolytic metabolic phenotype, exemplified by a more pronounced sensitivity to glycolysis inhibitors and elevated HIF1 α expression. Silencing of HIF1 α expression sensitized an intrinsically unresponsive MLL-rearranged leukemia cell to CCI-006, indicating that this pathway plays a role in determining sensitivity to the compound. In addition, unresponsive MLL-rearranged leukemia cells expressed increased levels of MEIS1, an important leukemogenic MLL target gene that plays a role in regulating metabolic phenotype through HIF1 α .

Reference: Oncogene. 2019 May;38(20):3824-3842. <https://www.ncbi.nlm.nih.gov/pmc/articles/pmid/30670779/>

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.