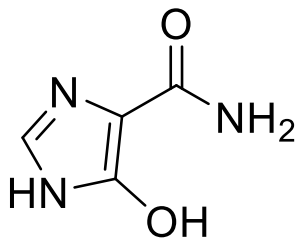
Product data sheet

MedKoo Cat#: 206706 Name: FF-10501 CAS#: 56973-26-3 (free base) Chemical Formula: $C_4H_5N_3O_2$ Exact Mass: 127.0382 Molecular Weight: 127.103	
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:
FF-1050 is an IMPDH Inhibitor. FF-10501 Possesses Activating Effects on Myeloid Differentiation As Well As Anti-Proliferation. FF-10501 inhibited the proliferation of 9 cell-lines of hematological malignancy, including K562, HL-60 and MOLM-13. FF-10501 could ameliorate myelosuppression during MDS treatment by maintaining myelopoiesis, and the low-dose therapy for low-risk MDS patients might be effective for the improving refractory anemia.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	7.87 mL	39.34 mL	78.68 mL
5 mM	1.57 mL	7.87 mL	15.74 mL
10 mM	0.79 mL	3.93 mL	7.87 mL
50 mM	0.16 mL	0.79 mL	1.57 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. Matsumoto T, Jimi S, Migita K, Terada K, Mori M, Takamatsu Y, Suzumiya J, Hara S. FF-10501 induces caspase-8-mediated apoptotic and endoplasmic reticulum stress-mediated necrotic cell death in hematological malignant cells. Int J Hematol. 2019 Nov;110(5):606-617. doi: 10.1007/s12185-019-02722-x. Epub 2019 Aug 12. PMID: 31407254.

In vivo study

TBD

7. Bioactivity
Biological target:

FF-1050 is an IMPDH Inhibitor.

In vitro activity

An in vitro study was conducted to elucidate the mechanisms of FF-10501-induced cell death using 12 hematological malignant cell lines derived from myeloid and lymphoid malignancies. FF-10501 suppressed the growth of each cell line in a dose-dependent manner. However, the clinically relevant dose (40 μM) of FF-10501 induced cell death in three cell lines (MOLM-13, OCI-AML3,

and MOLT-3). Investigation of the cell death mechanism suggested that FF-10501 induces both apoptotic and necrotic cell death. FF-10501-induced apoptosis was mediated by caspase-8 activation followed by activation of the mitochondrial pathway in MOLM-13 and MOLT-3 cells. FF-10501 induced necrotic cell death via endoplasmic reticulum stress in OCI-AML3 cells.

Reference: Int J Hematol. 2019 Nov;110(5):606-617. https://dx.doi.org/10.1007/s12185-019-02722-x

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.