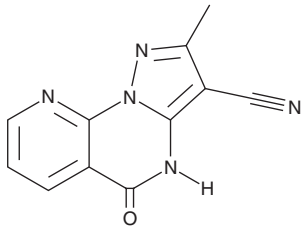
PRODUCT INFORMATION

KDM4D-IN-1

Item No. 37431

CAS Registry No.:	2098902-68-0
Formal Name:	4,5-dihydro-2-methyl-5-oxo-pyrazolo[1,5-a] pyrido[3,2-e]pyrimidine-3-carbonitrile
Synonym:	KDM4D Inhibitor 1
MF:	$C_{11}H_7N_5O$
FW:	225.2
Purity:	≥95%
UV/Vis.:	λ_{max}: 222, 259 nm
Supplied as:	A 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

KDM4D-IN-1 is supplied as a solid. A stock solution may be made by dissolving the KDM4D-IN-1 in the solvent of choice, which should be purged with an inert gas. KDM4D-IN-1 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of KDM4D-IN-1 in these solvents is approximately 0.2 mg/ml.

Description

KDM4D-IN-1 is an inhibitor of the histone demethylase jumonji domain-containing 2D (JMJD2D; IC_{50} = 0.41 µM).[1] It is selective for JMJD2D over JMJD1B, JMJD2B, and jumonji AT rich interactive domain-containing protein 1A (JARID1A; IC_{50}s = >10 µM for all). KDM4D-IN-1 (0.5 µM) decreases the colony formation, migration, and invasion of Caki-1 clear cell renal carcinoma cells and 786-O adenocarcinoma cells.[2] It reduces tumor growth and vessel development in a 786-O mouse xenograft model.

References

1. Fang, Z., Wang, T.-q., Li, H., *et al.* Discovery of pyrazolo[1,5-a]pyrimidine-3-carbonitrile derivatives as a new class of histone lysine demethylase 4D (KDM4D) inhibitors. *Bioorg. Med. Chem. Lett.* **27(14),** 3201-3204 (2017).
2. Yan, H., Zhu, L., Zhang, J., *et al.* Histone demethylase KDM4D inhibition suppresses renal cancer progression and angiogenesis through JAG1 signaling. *Cell Death Discov.* **7(1),** 284 (2021).

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