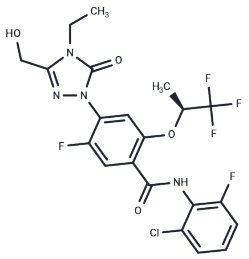
Data Sheet (Cat.No.T14501)

BAY-2402234

Chemical Properties



CAS No. : 2225819-06-5

Formula: C21H18ClF5N4O4

Molecular Weight: 520.84

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	BAY-2402234 is an inhibitor of dihydroorotate dehydrogenase (DHODH) for the treatment of myeloid malignancies.BAY 2402234 is a selective low-nanomolar inhibitor of human DHODH enzymatic activity.
Targets(IC50)	Dehydrogenase,DNA/RNA Synthesis
In vitro	BAY-2402234 induces differentiation of AML cell lines also in a sub-nanomolar to low-nanomolar range which demonstrates the anticipated mode of action in cellular mechanistic assays[1]. BAY-2402234 is a selective low-nanomolar inhibitor of human DHODH enzymatic activity. It potently inhibits proliferation of AML cell lines in the sub-nanomolar to low-nanomolar range in vitro.
In vivo	BAY-2402234 demonstrates potent in vivo anti-tumor effectiveness as a single agent across various AML (acute myeloid leukemia) xenograft models, including subcutaneous, disseminated, and patient-derived (PDX) forms. It promotes AML cell differentiation, evident through increased differentiation cell surface markers in treated xenograft and PDX models. The engagement of this novel DHODH (dihydroorotate dehydrogenase) inhibitor is confirmed by elevated dihydroorotate levels in tumor tissues and plasma post-treatment. Additionally, transcriptomic analyses reveal differentiation-related changes after a single dose of BAY-2402234, underscoring its mechanistic impact on AML cells[1].

Solubility Information

Solubility	DMSO: 124 mg/mL (238.08 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.920 mL	9.5999 mL	19.1998 mL
5 mM	0.384 mL	1.920 mL	3.840 mL
10 mM	0.192 mL	0.960 mL	1.920 mL
50 mM	0.0384 mL	0.192 mL	0.384 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Andreas Janzer, et al. Abstract DDT02-04: BAY 2402234: A novel, selective dihydroorotate dehydrogenase (DHODH) inhibitor for the treatment of myeloid malignancies. AACR Annual Meeting 2018; April 14-18, 2018; Chicago, IL.

Qiu X, Jiang S, Xiao Y, et al. SOX2-dependent expression of dihydroorotate dehydrogenase regulates oral squamous cell carcinoma cell proliferation. International Journal of Oral Science. 2021, 13(1): 1-9.

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