

PRODUCT INFORMATION



ML-390

Item No. 21395

CAS Registry No.: 2029049-79-2
Formal Name: N-[3-oxo-3-[[[(1R)-1,2,3,4-tetrahydro-1-naphthalenyl]amino]propyl]-4-(trifluoromethoxy)-benzamide

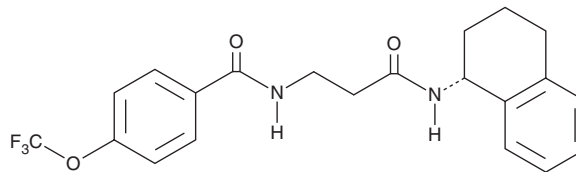
MF: C₂₁H₂₁F₃N₂O₃
FW: 406.4

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ML-390 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-390 in the solvent of choice. ML-390 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of ML-390 in these solvents is approximately 3, 20, and 12 mg/ml, respectively.

ML-390 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-390 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ML-390 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ML-390 is an inhibitor of dihydroorotate dehydrogenase (DHODH), the enzyme that converts dihydroorotate to orotate during *de novo* pyrimidine synthesis.¹ In acute myeloid leukemia, leukemic myeloblast development is halted at an immature stage leading to perpetual self-renewal rather than differentiation. ML-390 induces differentiation in the acute myeloid leukemia cell lines U937 (murine) and THP-1 (human) cell lines with an EC₅₀ value of approximately 2 μM.

Reference

1. Sykes, D.B., Kfoury, Y.S., Mercier, F.E., *et al.* Inhibition of dihydroorotate dehydrogenase overcomes differentiation blockade in acute myeloid leukemia. *Cell*. **167**(1), 171-186 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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