

PRODUCT INFORMATION



ML-148

Item No. 20475

CAS Registry No.: 451496-96-1

Formal Name: [1-(3-methylphenyl)-1H-benzimidazol-5-yl]-1-piperidinyl-methanone

MF: C₂₀H₂₁N₃O

FW: 319.4

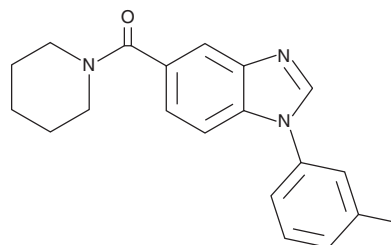
Purity: ≥98%

UV/Vis.: λ_{max}: 213, 242 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

ML-148 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-148 in the solvent of choice. ML-148 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of ML-148 in these solvents is approximately 10, 5, and 25 mg/ml, respectively.

ML-148 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-148 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ML-148 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ML-148 is an inhibitor of 15-hydroxy prostaglandin dehydrogenase (15-PGDH) with an IC₅₀ value of 56 nM.¹ It demonstrates selectivity for 15-PGDH when profiled across a panel of related dehydrogenase or reductase enzymes.¹

Reference

1. Niesen, F.H., Schultz, L., Jadhav, A., *et al.* High-affinity inhibitors of human NAD⁺-dependent 15-hydroxyprostaglandin dehydrogenase: Mechanisms of inhibition and structure-activity relationships. *PLoS One* **5(11)**, 1-12 (2010).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM