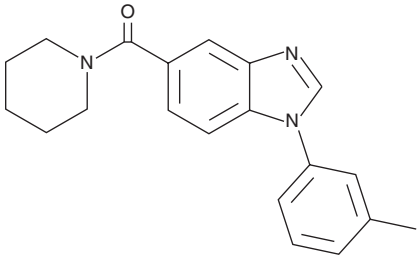
PRODUCT INFORMATION

ML-148

Item No. 20475

CAS Registry No.:	451496-96-1
Formal Name:	[1-(3-methylphenyl)-1H-benzimidazol-5-yl]-1-piperidinyl-methanone
MF:	$C_{20}H_{21}N_3O$
FW:	319.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 213, 242 nm
Supplied as:	A crystalline 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

ML-148 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-148 in the solvent of choice, which should be purged with an inert gas. ML-148 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). 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 IC_{50} 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)**, e13719 (2010).

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