

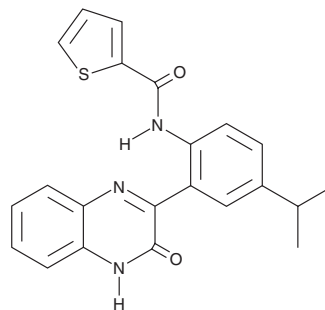
PRODUCT INFORMATION



ML-281

Item No. 20116

CAS Registry No.: 1404437-62-2
Formal Name: N-[2-(3,4-dihydro-3-oxo-2-quinoxaliny)-4-(1-methylethyl)phenyl]-2-thiophenecarboxamide
MF: C₂₂H₁₉N₃O₂S
FW: 389.5
Purity: ≥98%
UV/Vis.: λ_{max}: 284 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-281 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-281 in the solvent of choice, which should be purged with an inert gas. ML-281 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of ML-281 in these solvents is approximately 20 and 33 mg/ml, respectively.

ML-281 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-281 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ML-281 has a solubility of approximately 0.2 mg/ml in a 1:4 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-281 is an inhibitor of the serine/threonine kinase STK33 (IC₅₀ = 14 nM for purified, recombinant STK33), a kinase whose downregulation is toxic to KRAS-dependent cancer cell lines.¹ It has 700- and 550-fold selectivity for STK33 over PKA and Aurora B kinase, respectively. It is also selective over 81 other kinases in a panel at a concentration of 1 μM, but does inhibit the activity of Fms-like tyrosine kinase (FLT3) and vascular endothelial growth factor receptor 2 (VEGFR2/KDR) by greater than 25%. ML-281 does not decrease viability of KRAS-dependent or KRAS-independent cell lines.

Reference

1. Weiwer, M., Spoonamore, J., Wei, J., *et al.* A potent and selective quinoxalinone-based STK33 inhibitor does not show synthetic lethality in KRAS-dependent cells. *ACS Med. Chem. Lett.* **3(12)**, 1034-1038 (2012).

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.

WARRANTY AND LIMITATION OF REMEDY

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