

PRODUCT INFORMATION

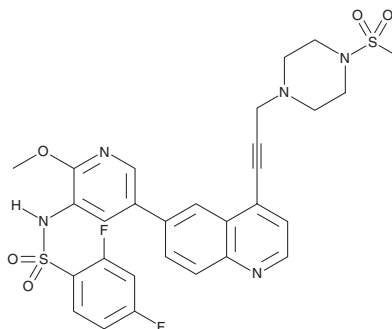


NSC 781406

Item No. 29226

CAS Registry No.: 1676893-24-5
Formal Name: 2,4-difluoro-N-[2-methoxy-5-[4-[3-[4-(methylsulfonyl)-1-piperazinyl]-1-propyn-1-yl]-6-quinolinyl]-3-pyridinyl]-benzenesulfonamide

MF: C₂₉H₂₇F₂N₅O₅S₂
FW: 627.7
Purity: ≥98%
UV/Vis.: λ_{max}: 255, 299 nm
Supplied as: A 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

NSC 781406 is supplied as a solid. A stock solution may be made by dissolving the NSC 781406 in the solvent of choice, which should be purged with an inert gas. NSC 781406 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of NSC 781406 in these solvents is approximately 20 and 10 mg/ml, respectively.

NSC 781406 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NSC 781406 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. NSC 781406 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

NSC 781406 is a dual inhibitor of PI3K and mammalian target of rapamycin (mTOR; IC₅₀s = 2.0, 9.4, 2.7, 14, and 5.4 nM for PI3Kα, PI3Kβ, PI3Kγ, PI3Kδ, and mTOR, respectively).¹ It inhibits cell growth in the NCI-60 panel of cancer cell lines (mean GI₅₀ = 65 nM). NSC 781406 (30 mg/kg) reduces tumor volume in a BEL-7404 hepatic cancer mouse xenograft model.

Reference

1. Chen, Y., Zhang, L., Yang, C., *et al.* Discovery of benzenesulfonamide derivatives as potent PI3K/mTOR dual inhibitors with in vivo efficacies against hepatocellular carcinoma. *Bioorg. Med. Chem.* **24(5)**, 957-966 (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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