

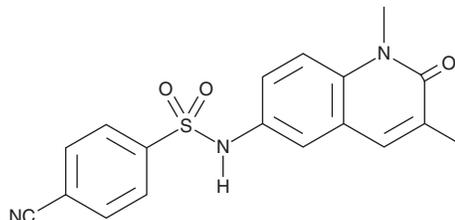
PRODUCT INFORMATION



NI-42

Item No. 28293

CAS Registry No.: 1884640-99-6
Formal Name: 4-cyano-N-(1,2-dihydro-1,3-dimethyl-2-oxo-6-quinolinyl)-benzenesulfonamide
MF: C₁₈H₁₅N₃O₃S
FW: 353.4
Purity: ≥98%
UV/Vis.: λ_{max}: 239, 273, 335 nm
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

NI-42 is supplied as a crystalline solid. A stock solution may be made by dissolving the NI-42 in the solvent of choice, which should be purged with an inert gas. NI-42 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of NI-42 in these solvents is approximately 30 mg/ml.

NI-42 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NI-42 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. NI-42 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

NI-42 is an inhibitor of the bromodomain and PHD finger-containing 1 (BRPF1) bromodomain (IC₅₀ = 7.9 nM).¹ It is selective for BRPF1 over BRPF2/BRD1, BRPF3, BRD9, and BRD4/BD1 (IC₅₀s = 48, 260, 310, and 4,500 nM, respectively).² NI-42 inhibits the growth of OCI-AML2, Nomo-1, THP-1, KG-1, and MV-4-11 acute myeloid leukemia (AML) cells (GI₅₀s = 1.3, 4.6, 5.7, 7, and 9.9 μM, respectively) and a variety of non-AML cells (GI₅₀s = 1-10 μM).¹ It also inhibits the growth of DMS114 lung, HRA-19 colon, and RERF-LC-Sq1 lung cancer cells (GI₅₀s = 16.6, 15.6, and 17.1 μM, respectively) but not NCI H1703 lung cancer cells (GI₅₀ = >30 μM).²

References

1. Igoe, N., Bayle, E.D., Fedorov, O., *et al.* Design of a biased potent small molecule inhibitor of the bromodomain and PHD finger-containing (BRPF) proteins suitable for cellular and *in vivo* studies. *J. Med. Chem.* **60**(2), 668-680 (2017).
2. Igoe, N., Bayle, E.D., Tallant, C., *et al.* Design of a chemical probe for the bromodomain and plant homeodomain finger-containing (BRPF) family of proteins. *J. Med. Chem.* **60**(16), 6998-7011 (2017).

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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