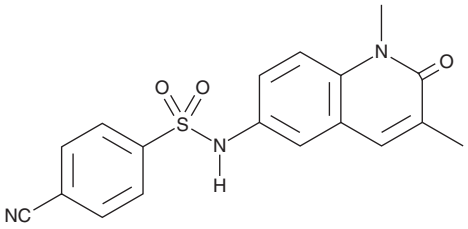
PRODUCT INFORMATION

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:	$C_{18}H_{15}N_3O_3S$
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 (IC_{50} = 7.9 nM).[1] It is selective for BRPF1 over BRPF2/BRD1, BRPF3, BRD9, and BRD4/BD1 (IC_{50}s = 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 (GI_{50}s = 1.3, 4.6, 5.7, 7, and 9.9 µM, respectively) and a variety of non-AML cells (GI_{50}s = 1-10 µM).[1] It also inhibits the growth of DMS114 lung, HRA-19 colon, and RERF-LC-Sq1 lung cancer cells (GI_{50}s = 16.6, 15.6, and 17.1 µM, respectively) but not NCI H1703 lung cancer cells (GI_{50} = >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).

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