PRODUCT INFORMATION



MSC4381

Item No. 41135

CAS Registry No.:	2445185-57-7	
Formal Name:	5-[2-[5-chloro-2-[[(5-ethoxy-	
	8-quinolinyl)sulfonyl]amino]	
	phenyl]ethynyl]-4-methoxy-2- pyridinecarboxylic acid	
MF:	C ₂₆ H ₂₀ CIN ₃ O ₆ S	
FW:	538.0	
Purity:	≥95%	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	Cl

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MSC4381 is supplied as a solid. A stock solution may be made by dissolving the MSC4381 in the solvent of choice, which should be purged with an inert gas. MSC4381 is slightly soluble (0.1-1 mg/ml) in methanol and DMSO.

Description

MSC4381 is an inhibitor of monocarboxylate transporter 4 (MCT4; $K_i = 0.011 \,\mu$ M).¹ It selectively inhibits lactate efflux in MDA-MB-231 cells, which endogenously express high levels of MCT4, over SNU-398 cells, which endogenously express high levels of MCT1, and RT4 cells, which endogenously express MCT2 and MCT3 (IC₅₀s = 0.001, >4, and 0.638 μ M, respectively). MSC4381 (30 mg/kg) increases survival and reduces tumor volume in an MC-38 murine colorectal carcinoma model when administered in combination with an antibody targeting programmed cell death ligand 1 (PD-L1).²

References

- 1. Heinrich, T., Sala-Hojman, A., Ferretti, R., et al. Discovery of 5-{2-[5-chloro-2-(5-ethoxyquinoline-8sulfonamido)phenyl]ethynyl}-4-methoxypyridine-2-carboxylic acid, a highly selective in vivo useable chemical probe to dissect MCT4 biology. J. Med. Chem. 64(16), 11904-11933 (2021).
- 2. Babl, N., Decking, S.-M., Voll, F., et al. MCT4 blockade increases the efficacy of immune checkpoint blockade. J. Immunother. Cancer 11(10), e007349 (2023).

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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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