

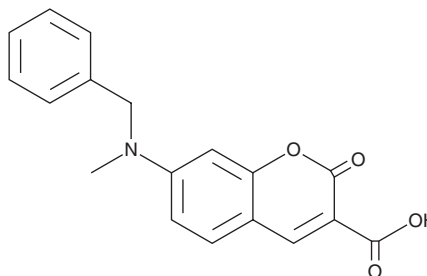
PRODUCT INFORMATION



7ACC2

Item No. 23445

CAS Registry No.: 1472624-85-3
Formal Name: 7-[methyl(phenylmethyl)amino]-
2-oxo-2H-1-benzopyran-3-
carboxylic acid
MF: $C_{18}H_{15}NO_4$
FW: 309.3
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 204, 256, 416 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

7ACC2 is supplied as a crystalline solid. A stock solution may be made by dissolving the 7ACC2 in the solvent of choice, which should be purged with an inert gas. 7ACC2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 7ACC2 in ethanol is approximately 0.5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Description

7ACC2 is a carboxycoumarin inhibitor of monocarboxylate transporter 1 (MCT1) with an IC_{50} value of 10 nM for lactate uptake, an MCT1-dependent process, in SiHa human cervix carcinoma cells.¹ It inhibits proliferation of SiHa cells in the presence of lactate in a dose-dependent manner but lacks cytotoxicity in the presence of glucose. 7ACC2 also inhibits the mitochondrial pyruvate carrier (MPC) in a concentration- and time-dependent manner in isolated tumor cell mitochondria.² *In vivo*, 7ACC2 (3 mg/kg) increases intratumor lactate accumulation and decreases tumor size in an SiHa mouse xenograft model.

References

1. Draoui, N., Schicke, O., Fernandes, A., *et al.* Synthesis and pharmacological evaluation of carboxycoumarins as a new antitumor treatment targeting lactate transport in cancer cells. *Bioorg. Med. Chem.* **21**(22), 7107-7117 (2013).
2. Corbet, C., Bastien, E., Draoui, N., *et al.* Interruption of lactate uptake by inhibiting mitochondrial pyruvate transport unravels direct antitumor and radiosensitizing effects. *Nat. Commun.* **9**(1), 1208 (2018).

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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