PRODUCT INFORMATION



Brequinar (sodium salt)

Item No. 36183

CAS Registry No.:	96201-88-6	0-
Formal Name:	6-fluoro-2-(2'-fluoro[1,1'-	0
	biphenyl]-4-yl)-3-methyl-	
	4-quinolinecarboxylic acid,	F • Nat
	monosodium salt	
Synonyms:	DuP-785, NSC 368390	
MF:	$C_{23}H_{14}F_2NO_2 \bullet Na$	
FW:	397.4	
Purity:	≥98%	
UV/Vis.:	λ _{max} : 262 nm	Ť Ĭ
Supplied as:	A solid	
Storage:	-20°C	F
Stability:	≥4 years	

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

Laboratory Procedures

Brequinar (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the brequinar (sodium salt) in the solvent of choice, which should be purged with an inert gas. Brequinar (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of brequinar (sodium salt) in ethanol and DMSO is approximately 2 mg/ml and approximately 3 mg/ml in DMF.

Description

Brequinar is an inhibitor of dihydroorotate dehydrogenase (DHODH; $IC_{50} = -20$ nM), the enzyme that converts dihydroorotate to orotate during *de novo* pyrimidine synthesis.¹ Brequinar is selective for DHODH over a panel of greater than 400 kinases at 100 nM. It induces differentiation of ER-HoxA9, U937, and THP-1 cells in vitro (EC₅₀s = ~1 μ M) and of tumor cells in a THP-1 mouse xenograft model when administered at doses of 15 mg/kg three times daily and 5 mg/kg per day. It also reduces tumor growth in THP-1, HL-60, and MOLM-13 mouse xenograft models. In a retroviral transduction mouse model of HoxA9 + Meis1 acute myeloid leukemia (AML), brequinar induces differentiation of bone marrow leukemic cells and increases survival.

Reference

1. Sykes, D.B., Kfoury, Y.S., Mercier, F.E., et al. Inhibition of dihydroorotate dehydrogenase overcomes differentiation blockade in acute myeloid leukemia. Cell 167(1), 171-186 (2016).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY 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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