
Product Data Sheet

Product Name: Brequinar sodium

Cat. No.: GC50377

Chemical Properties

Cas. No. 96201-88-6

SMILES CC1=C(C2=CC(F)=CC=C2N=C1C3=CC=C(C4=C(C=CC=C4)F)C=C3)C(O[Na])=O

Formula $C_{23}H_{14}F_2NO_2Na$ M.Wt 397.35

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with Condition RT, or blue ice upon request.

Structure

Background

Potent and selective dihydroorotate dehydrogenase (DHODH) inhibitor (IC₅₀ = ~20 nM). Causes depletion of pyrimidine nucleotides. Exhibits minimal inhibition against a panel of >400 kinases. Triggers differentiation of AML cell lines (ED₅₀ = ~ 1 μM. Note uridine concentration effects ED₅₀ value). Causes differentiation and depletion of leukemia-initiating cells in vivo. Antimetabolite.

Arteaga (1989) Phase I clinical and pharmacokinetic trial of Brequinar sodium (DuP 785; NSC 368390). Cancer Res. 49 4648 PMID:2743343 |Sykes et al (2016) Inhibition of dihydroorotate dehydrogenase overcomes differentiation blockade in acute myeloid leukemia. Cell 167 171 PMID:27641501 |Peters et al (1987) Inhibition of pyrimidine de novo synthesis by DUP-785 (NSC 368390). Invest.New Drugs 5 235 PMID:2822596

Caution: Product has not been fully validated for medical applications. For research use only.

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