Product Data Sheet

Product Name: Sulindac sulfone
Cat. No.: GC11721

Chemical Properties

Cas. No.	59864-04-9		
Chemical Name	5-fluoro-2-methyl-1-[[4-(methylsulfonyl)phenyl]methylene]-1H-indene-3-acetic acid		
SMILES	FC1=CC=C(/C(C(C)=C2CC(O)=O)=C/C3=CC=C(S(C)(=O)=O)C=C3)C2=C1		
Formula	$C_{20}H_{17}FO_4S$	M.Wt	372.4
Solubility	≥ 9.53 mg/mL in DMSO with ultrasonic and warming, ≥ 3.83 mg/mL in EtOH with ultrasonic and warming	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Sulindac sulfone		

Background

Sulindac sulfone is a metabolite of the nonsteroidal anti-inflammatory drug (NSAID) sulindac.

In vitro: Sulindac sulfone treatment also inhibited PGE2 production by HCA-7 cells with an IC50 of 360 mmol/L. Sulindac sulfone at 100 mmol/L reduced 6-ketoPGFα by 29.2%. Sulindac sulfone reduced the colony number of HCA-7 and HCT-116 with an EC50 of 50 mmol/l[1]. Sulindac sulfone significantly decreased the expression of total cellular β-catenin (50% of control), pro-caspase 3 (49%), cyclin D1 (51%), and PPARδ (65%) in SW480 cells. No significant alteration in pro-caspase 3 or β-catenin expression was found in HCA7, LS174, or Caco-2 cells treated with sulindac sulfone. A dose-dependent reduction in TCF-mediated transcriptional activity was also observed in SW480 cells [2].

In vivo: Sulindac sulfone is capable of reducing the incidence, multiplicity and tumor

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burden in the azoxymethane AOM rat model of colorectal cancer. Sulindac sulfone had no effect on the growth of HCA-7, HCT-116 xenografts and cancer cell xenografts [1].

Clinical Trial: In patients with familial adenomatous polyposis, treatment of sulindac sulfone for a period of six months led to regression of small polyps [3].

References:
[1] Williams C S, Goldman A P, Sheng H, et al. Sulindac sulfide, but not sulindac sulfone, inhibits colorectal cancer growth[J]. Neoplasia, 1999, 1(2): 170-176.
[2] CHANG W E N C H I L, Everley L C, Pfeiffer G R, et al. Sulindac Sulfone Is Most Effective in Modulating β-Catenin-Mediated Transcription in Cells with Mutant APC[J]. Annals of the New York Academy of Sciences, 2005, 1059(1): 41-55.
[3] Stoner G D, Budd G T, Ganapathi R, et al. Sulindac sulfone induced regression of rectal polyps in patients with familial adenomatous polyposis[M]//Colon Cancer Prevention. Springer US, 1999: 45-53.