Product Data Sheet

Product Name: Polmacoxib
Cat. No.: GC18271

Chemical Properties

Cas. No.	301692-76-2		
Chemical Name	4-[3-(3-fluorophenyl)-4,5-dihydro-5,5-dimethyl-4-oxo-2-furanyl]-benzenesulfonamide		
SMILES	FC1=CC(C2=C(C3=CC=C(S(N)(=O)=O)C=C3)OC(C)(C)C2=O)=CC=C1		
Formula	$C_{18}H_{16}FNO_4S$	M.Wt	361.4
Solubility	DMF: 20 mg/ml,DMSO: 20 mg/ml,DMSO:PBS (pH 7.2)(1:8): 0.5 mg/ml,Ethanol: 5 mg/ml	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	Polmacoxib		

Background

Polmacoxib is an inhibitor of cyclooxygenase 2 (COX-2) and the carbonic anhydrase subtypes I (CAI) and CAII. It inhibits COX-2 in the absence of carbonic anhydrase II with an IC50 value of 40 nM, which increases by approximately 4- and 17-fold in the presence of a CAII at a molar ratio of 1:1 and 1:5, respectively. It also inhibits CAI and CAII (IC50s = 210 and 95 nM, respectively). Polmacoxib prevents >95 and 90% of prostaglandin E2 (PGE2) production in HCA-7 and HT-29 human colon cancer cells, respectively, using concentrations of 0.01 and 0.001 ug/ml. It inhibits polyp formation in a transgenic mouse model of intestinal polyp formation and tumor growth in human colorectal carcinoma mouse xenograft models when used at a dose of 7 mg/kg. The inhibition of COX-2 and CAII by polmacoxib has the potential for fewer serious systemic adverse effects, including cardiovascular events associated with COX-2 selective inhibitors such as celecoxib . Formulations containing polmacoxib have been used in the treatment of

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osteoarthritis.

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