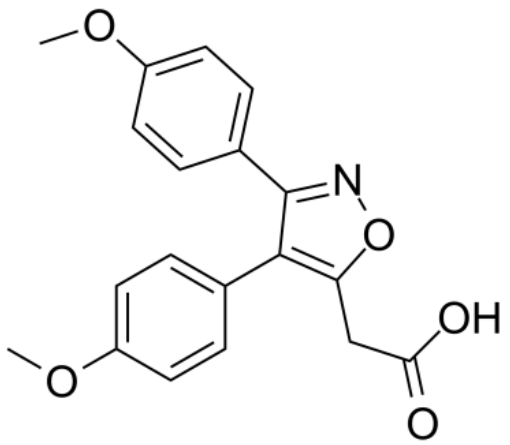
Product Data Sheet

Product Name: Mofezolac
Cat. No.: GC61843

Chemical Properties

Cas. No.	78967-07-4		
SMILES	O=C(O)CC1=C(C2=CC=C(OC)C=C2)C(C3=CC=C(OC)C=C3)=NO1		
Formula	$C_{19}H_{17}NO_5$	M.Wt	339.34
Solubility	DMSO : 100 mg/mL (294.69 mM; Need ultrasonic)	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 Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Mofezolac, a non-steroidal anti-inflammatory drug (NSAID), is a selective, reversible and orally active COX-1 inhibitor with an IC50 of 1.44 nM. Mofezolac shows weak inhibitory activity on COX-2 (IC50 of 447 nM). Mofezolac can relieve pain and has anti-inflammatory activities[1].

Mofezolac inhibits platelet aggregation with an IC50 of 0.45 μM in human platelet rich plasma (hPRP)

assay[2]. Mofezolac slightly increase Bortezomib cytotoxic effect on multiple myeloma (MM) cell lines (NCI-H929 and RPMI-8226) and affects MM cell cycle and apoptosis when co-administered with the proteasome inhibitor Bortezomib[2].

Mofezolac (1-30 mg/kg; oral administration; once) treatment results in the suppression of writhing induced by the intraperitoneal injection of phenyl-p-benzoquinone in mice[1].

References:
[1]. K Goto, et al. Analgesic effect of mofezolac, a non-steroidal anti-inflammatory drug, against phenylquinone-induced acute pain in mice. Prostaglandins Other Lipid Mediat. 1998 Jul;56(4):245-54.
[2]. Maria Laura Pati, et al. Translational impact of novel widely pharmacological characterized mofezolac-derived COX-1 inhibitors combined with bortezomib on human multiple myeloma cell lines viability. Eur J Med Chem. 2019 Feb 15;164:59-76.