Product Data Sheet

Product Name: BW 755C
Cat. No.: GC14601

Chemical Properties

Cas. No.	66000-40-6		
Chemical Name	4,5-dihydro-1-[3-(trifluoromethyl)phenyl]-1H-pyrazol-3-amine		
SMILES	NC(CC1)=NN1C2=CC=CC(C(F)(F)F)=C2		
Formula	$C_{10}H_{10}F_3N_3$	M.Wt	229.3
Solubility	≤30mg/ml in ethanol;30mg/ml in DMSO;25mg/ml in dimethyl formamide	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	BW 755C		

Background

IC50: 0.75 μM, 0.65 μg/ml, and 1.2 μg/ml for 5-LO, COX-1, and COX-2, respectively

BW 755C is a dual inhibitor of 5-lipoxygenase (5-LO) and cyclooxygenase (COX) pathways.

Constitutive cyclooxygenase (COX-1) is present in cells under physiological conditions, whereas COX-2 is induced by some cytokines, mitogens, and endotoxin in pathological conditions, such as inflammation. Since 5-lipoxygenase (5-LO) oxidizes arachidonic acid to 5-hydroperoxyeicosatetraenoic acid in the first step of the leukotriene pathway, 5-LO inhibitors should prevent leukotriene biosynthesis and thus prove useful in the treatment of allergic asthma.

In vitro: Previous study found that BW 755C and other nonsteroidal antiinflammatory drugs including diclofenac, acetaminophen, and naproxen showed approximately

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

equipotent inhibitory effects on COX-1 and COX-2 in intact cells. Whereas, BF 389 was the most potent and most selective inhibitor of COX-2 in intact cells [1].

In vivo: An animal study was conducted to examine whether BW-755C delayed neuronal death in the hippocampal CA1 sector in Mongolian gerbils after 5 minutes of forebrain ischemia. Gerbils were injected with BW-755C. Seven days after ischemic insult, the animals were perfusion-fixed, and the neuronal density in the hippocampal CA, sector was estimated. Results showed that in ischemic gerbils with vehicle administration, the average neuronal density was 13 for BW-755C. In ischemic gerbils treated with 30 mg/kg BW-755C, the average neuronal densities was 14 [2].

Clinical trial: So far, no clinical study has been conducted.

References:
[1] Mitchell, J. A.,Akarasereenont, P.,Thiemermann, C., et al. Selectivity of nonsteroidal antiinflammatory drugs as inhibitors of constitutive and inducible cyclooxygenase. Proceedings of the National Academy of Sciences of the United States of America 90, 11693-11697 (1993).
[2] Nakagomi T, Sasaki T, Kirino T, Tamura A, Noguchi M, Saito I, Takakura K. Effect of cyclooxygenase and lipoxygenase inhibitors on delayed neuronal death in the gerbil hippocampus. Stroke. 1989 Jul;20(7):925-9.