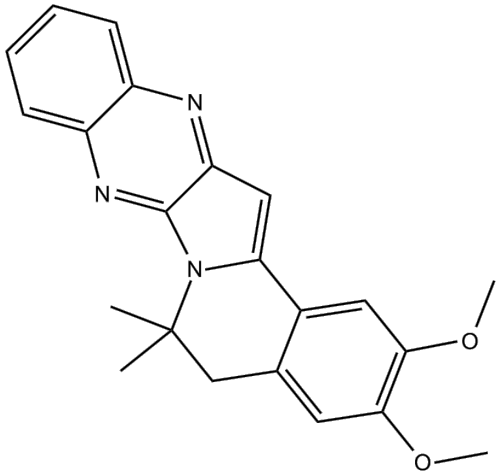
Product Data Sheet

Product Name: YM 90709
Cat. No.: GC11664

Chemical Properties

Cas. No.	163769-88-8		
Chemical Name	2,3-dimethoxy-6,6-dimethyl-5,6-dihydrobenzo[7,8]indolizino[2,3-b]quinoxaline		
SMILES	CC(CC1=CC(OC)=C2OC)(C)N3C(C1=C2)=CC4=NC5=CC=CC=C5N=C34		
Formula	$C_{22}H_{21}N_3O_2$	M.Wt	359.43
Solubility	DMF: 10 mg/ml,DMSO: 20 mg/ml,Ethanol: 2 mg/ml	Storage	Store at RT
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

YM-90709 is a novel antagonist which inhibits the binding of interleukin-5 to interleukin-5 receptor.Target: IL-5in vitro: YM-90709 potently inhibits the binding of 100 pM [125I]-IL-5 to IL-5R on human peripheral eosinophils and eosinophilic HL-60 clone 15 cells with IC50 values of 1.0±0.40 and 0.57±0.21 μM, respectively. YM-90709 inhibits the 4 pM IL-5-induced effect in a concentration-

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dependent manner with an IC50 value of 0.45±0.024 μM. YM-90709 also inhibits the higher concentrations (12 and 40 pM) of IL-5-induced effects with IC50 values of 0.89±029 and 1.0±0.22 μM, respectively. [1] YM-90709 is a novel interleukin-5 receptor antagonist, YM-90709 inhibits antigen-induced eosinophil recruitment into the airway, the same as anti-IL-5 mAb does. YM-90709 inhibits the binding of IL-5 to IL-5R on human eosinophils, but did not inhibit the binding of GM-CSF to GM-CSFR. In addition, YM-90709 inhibits IL-5-induced, but not GM-CSF-induced, eosinophil survival as well as the tyrosine phosphorylation of Janus kinase 2. [2]in vivo: YM-90709 suppresses antigen-induced airway inflammation in Brown Norway rats . YM-90709 is a novel IL-5R antagonist with those of anit-IL-5 mAb on the antigen-induced infiltration of eosinophils into the airways of BDF1 mice, a strain that is commonly used in the antibody estimation. [2] This is the first report on the examination of the effects of YM-90709 in vivo, as a novel IL-5R antagonist on the antigen-induced infiltration of eosinophils and other leukocytes into the BALF of Brown-Norway (BN) rats. [3]

References:

[1]. Morokata T, et al. Characterization of YM-90709 as a novel antagonist which inhibits the binding of interleukin-5 to interleukin-5 receptor. Int Immunopharmacol. 2002 Nov;2(12):1693-702.
[2]. Morokata T, et al. Effect of a novel interleukin-5 receptor antagonist, YM-90709, on antigen-induced eosinophil infiltration into the airway of BDF1 mice. Immunol Lett. 2005 Apr 15;98(1):161-5.
[3]. Morokata T, et al. Effect of a novel interleukin-5 receptor antagonist, YM-90709 (2,3-dimethoxy-6,6-dimethyl-5,6-dihydrobenzo[7,8]indolizino[2,3-b]quinoxaline), on antigen-induced airway inflammation in BN rats. Int Immunopharmacol. 2004 Jul;4(7):873-83.