Product Data Sheet

Product Name: GW 610
Cat. No.: GC10616

Chemical Properties

Cas. No.	872726-44-8		
Chemical Name	2-(3,4-dimethoxyphenyl)-5-fluorobenzo[d]thiazole		
SMILES	FC1=CC2=C(SC(C3=CC=C(OC)C(OC)=C3)=N2)C=C1		
Formula	$C_{15}H_{12}FNO_2S$	M.Wt	289.32
Solubility	DMF: 10 mg/ml,DMF:PBS (pH 7.2) (1:3): 0.25 mg/ml,DMSO: 0.5 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	GW 610		

Background

GI50: < 0.1 nM for MCF-7 and MDA 468 cancer cell lines

GW 610 is a potent antiproliferative agent with tyrosine kinase inhibitory properties.

Tyrosine kinases are important mediators of the signaling cascade, having critical roles in various biological processes such as growth, differentiation, metabolism as well as apoptosis in response to both internal and external stimuli.

In vitro: GW 610 was evaluated in vitro in four human cancer cell lines, and GW 610 was observed to display potent antiproliferative activity exquisitely (GI50 < 0.1 nM for both MCF-7 and MDA 468). Moreover, selective and potent activity was observed in the NCI 60 human cancer cell line panel as well. Structure-activity relationships (SARs) indicated that GW 610 exhibited a pinnacle of potent activity, with most structural variations with a deactivating in-vitro effect. Mechanistically, this noval compound contrasting with the

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previously reported 2-(4-aminophenyl)benzothiazoles, GW 610 was not dependent on induction of CYP1A1 expression for antitumor activity. An additional observation was that CYP1A1 protein was also expressed in MCF-7 and MDA 468 cells exposed to GW 610’s inactive analogues [1].

In vivo: Currently, there is no animal in vivo data reported.

Clinical trial: Up to now, GW 610 is still in the preclinical development stage.

Reference:
[1] Mortimer CG,Wells G,Crochard JP,Stone EL,Bradshaw TD,Stevens MF,Westwell AD. Antitumor benzothiazoles. 26.(1) 2-(3,4-dimethoxyphenyl)-5-fluorobenzothiazole (GW 610, NSC 721648), a simple fluorinated 2-arylbenzothiazole, shows potent and selective inhibitory activity against lung, colon, and breast cancer cell lines. J Med Chem.2006 Jan 12;49(1):179-85.