GW 610

Cat. No.: HY-118474

CAS No.: 872726-44-8

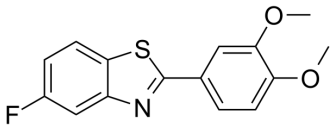
Molecular Formula: $C_{15}H_{12}FNO_2S$

Molecular Weight: 289.32

Target: Others

Pathway: Others

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (86.41 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.4564 mL	17.2819 mL	34.5638 mL
	5 mM	0.6913 mL	3.4564 mL	6.9128 mL
	10 mM	0.3456 mL	1.7282 mL	3.4564 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GW 610 (NSC 721648), an antitumor agent, shows potent and selective anticancer activity against lung, colon, and breast cancer cell lines[1][2][3].

In Vitro

GW 610 inhibits the proliferation of MCF-7, MDA 468, KM 12, and HCC 2998 cells, with GI_{50}s of <0.1 nM, <0.1 nM, 290 nM, and 0.25 nM, respectively[1].
GW 610 (0.1-1 μM) induces CYP1A1 mRNA and protein in MDA-MB-468, MCF-7, KM12, and HCC2998 cells, whereas CYP2S1 and CYP2W1 are induced only in breast cancer cells[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[3]

Cell Line:	MDA-MB-468, MCF-7, KM12, and HCC2998 cells
Concentration:	0.1, 1 μM

Incubation Time:	48 hours
Result:	Induced CYP1A1 mRNA and protein in all cell lines including KM12 and HCC2998 CRC cells. Induced CYP2S1 and CYP2W1 mRNA and protein expression in MDA-MB-468 and MCF-7 breast cancer cells.

REFERENCES

[1]. Mortimer CG, et, al. 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.

[2]. Aiello S, et, al. Synthesis and biological properties of benzothiazole, benzoxazole, and chromen-4-one analogues of the potent antitumor agent 2-(3,4-dimethoxyphenyl)-5-fluorobenzothiazole (PMX 610, NSC 721648). J Med Chem. 2008 Aug 28;51(16):5135-9.

[3]. Tan BS, et, al. CYP2S1 and CYP2W1 mediate 2-(3,4-dimethoxyphenyl)-5-fluorobenzothiazole (GW-610, NSC 721648) sensitivity in breast and colorectal cancer cells. Mol Cancer Ther. 2011 Oct;10(10):1982-92.

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