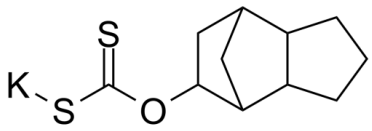
Data Sheet

Product Name:	D609
Cat. No.:	CS-0078
CAS No.:	83373-60-8
Molecular Formula:	C11H15KOS2
Molecular Weight:	266.46
Target:	Phospholipase
Pathway:	Metabolic Enzyme/Protease
Solubility:	DMSO : 100 mg/mL (375.29 mM; Need ultrasonic); H2O : 2 mg/mL (7.51 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

D609 is a selective competitive inhibitor of **phosphatidyl choline-specific phospholipase C (PC-PLC)**, with K_i of 6.4 μM, used for antiviral and antitumor research. IC50 & Target: Ki: 6.4 μM (PC-PLC)

PROTOCOL (Extracted from published papers and Only for reference)

Cell assay [1] 5 × 104 HT22 cells were seeded onto 35-mm tissue culture dishes and, 12 h later, were treated with 5 mM glutamate and/or 50 μM D609 for various times. The medium was removed, and cells were washed three times with Hanks' balanced saline solution. The uptake of radioactive cystine was then initiated by adding 1 ml of labeling mix (5 mM glucose/1 μM nonradioactive cystine/60 μM 35S-cystine per ml with or without 5 mM glutamate/50 μM D609) to each dish followed by incubation for 20 min in a 37°C water bath. Cells then were washed three times with cold Hanks' balanced saline solution and then lysed. One-half of the cell lysate was used for radioactivity determination, and the other half was used to assay protein with a commercial kit. The rate of cystine uptake is defined as picomol of cystine per microgram of protein per 20 min and is presented as a percentage of the control. Cystine uptake was linear for at least 40 min. Nonspecific cystine uptake also was determined as described above except that excess nonradioactive cystine was used (1 mM instead of 1 μM), and this value was subtracted from the above calculation.

References:

[1]. Kalluri HS, et al. D609 inhibits the proliferation of neural progenitor cells.Neuroreport. 2010 Jul 14;21(10):700-3.

[2]. Milhas D, et al. The Tricyclodecan-9-yl-xanthogenate D609 Triggers Ceramide Increase and Enhances FasL-Induced Caspase-Dependent and -Independent Cell Death in T Lymphocytes.Int J Mol Sci. 2012;13(7):8834-52. Epub 2012 Jul 16.

[3]. Gusain A, et al. Anti-proliferative effects of tricyclodecan-9-yl-xanthogenate (D609) involve ceramide and cell cycle inhibition.Mol Neurobiol. 2012 Jun;45(3):455-64. Epub 2012 Mar 14.

CAIndexNames:

Carbonodithioic acid, O-(octahydro-4,7-methano-1H-inden-5-yl) ester, potassium salt (1:1)

SMILES:

S=C(OC1C2C3CCCC3C(C1)C2)S[K]

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA