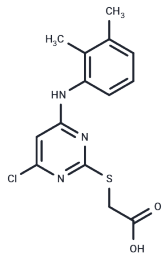
Data Sheet (Cat.No.T2269)

TargetMol

Pirinixic Acid

Chemical Properties



CAS No. : 50892-23-4

Formula: C14H14ClN3O2S

Molecular Weight: 323.8

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Pirinixic Acid (NSC 310038) is a synthetic thiacetic acid derivative used in biomedical research, carcinogenic Pirinixic acid is a peroxisome proliferator that activates specific peroxisome proliferator-activated receptors (PPAR).
Targets(IC50)	PPAR
In vitro	WY14643 significantly reduced visceral fat mass and total liver triglyceride content without increasing body weight. It enhanced systemic insulin sensitivity and improved insulin-mediated skeletal muscle glucose metabolism in both red (47%) and white (63%) muscle fibers, as well as in white adipose tissue (90%), while reducing muscle triglyceride and LCACoA accumulation. Administration of WY14643 (1 mg/kg i.v.) 30 minutes before left anterior descending artery occlusion led to a notable reduction in infarct size (~44%) in rats subjected to myocardial ischemia (25 minutes) followed by reperfusion (2 hours). In rats fed a high-fat diet, treatment with 3 mg/kg WY14643 lowered plasma glucose and triglyceride levels (-16% vs. untreated), leptin (-52%), muscle triglycerides (-34%), and overall long-chain acyl-coenzyme A (-41%) levels.
In vivo	WY14643 (250 μM) significantly reduces the expression levels of VCAM-1, lowering it to 52% of those in human endothelial cells stimulated by TNF-α. At a concentration of 10 μM, WY 14643 acts on aortic smooth muscle cells to almost completely inhibit the production of IL-6 and prostaglandin induced by IL-1, as well as the expression of cyclooxygenase-2, through the suppression of the NF-κB signaling pathway. Pre-treating endothelial cells with WY 14643 (10 μM) before TNF-α stimulation decreases U937 cell adhesion by 50%.
Kinase Assay	Fluorescence Polarization Assay: Binding of HSP90 inhibitors to human full-length recombinant HSP90β is determined by a competitive binding fluorescence polarization assay, using a fluorescent pyrazole resorcinol probe.

Solubility Information

Solubility	DMSO: 65 mg/mL (200.74 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0883 mL	15.4416 mL	30.8833 mL
5 mM	0.6177 mL	3.0883 mL	6.1767 mL
10 mM	0.3088 mL	1.5442 mL	3.0883 mL
50 mM	0.0618 mL	0.3088 mL	0.6177 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

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