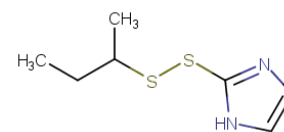


Catalog Number: CM06641

## 产品信息

Catalog Number:  
CM06641CAS号:  
141400-58-0分子式:  
C<sub>7</sub>H<sub>12</sub>N<sub>2</sub>S<sub>2</sub>主要靶点:  
Thioredoxin主要通路:  
代谢分子量:  
188.32溶解度:  
DMSO:18.8 mg/mL(100  
mM),Ethanol:38 mg/mL (201.79  
mM),H<sub>2</sub>O:<1 mg/mL

## 靶点活性

HT-29 cell:2.9 μM|MCF-7 cell:1.9 μM

## 体外活性

In MCF-7 and HT-29 cells, PX-12 prevents the hypoxia (1% oxygen)-induced increase in HIF-1α protein, and decreases HIF-1-trans-activating activity, VEGF formation, and inducible nitric oxide synthase. PX-12 also inhibits the growth of MCF-7 and HT-29 cells with IC<sub>50</sub>s of 1.9 μM and 2.9 μM, respectively. [1] PX-12 also inhibits HIF-1α protein levels through an Nrf2/PMF-1-mediated increase. [2] In A549 cells, PX-12 inhibits cell growth via G2/M phase arrest, and Bax-mediated and ROS-dependent apoptosis. [3] In hepatocellular carcinoma cells, PX-12 exerts a synergistic effect with 5-FU to significantly suppress tumorigenicity. [4]

## 体内活性

In mice bearing MCF-7 tumor xenografts, PX-12 (12 mg/kg, i.p.) decreases HIF-1α and VEGF protein levels and microvessel density. [1]

## 细胞实验

Cell growth is measured using the 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay. Cells are exposed to a range of concentrations of PX-12 or pleurotin for 16 h in air or hypoxia (1% oxygen). The cells are then washed with warm drug-free medium and grown in air for the remainder of the 72-h incubation.(Only for Reference)

## 描述

PX-12 (1-methylpropyl 2-imidazolyl disulfide) is a small-molecule inhibitor of Trx-1 (thioredoxin-1), stimulates apoptosis, down-regulates HIF-1α and vascular endothelial growth factor (VEGF) and inhibits tumor growth in animal models. Since high levels of Trx-1 have been associated with colorectal, gastric and lung cancers, PX-12 is indicated as a potential cancer treatment in combination with chemotherapy for patients with advanced metastatic cancer. Initial trials correlated doses of PX-12 with increased patient survival.

## 储存

Powder: -20°C for 3 years | In solvent: -80°C for 2 years