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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

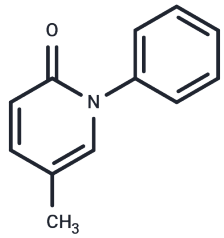
linkedin.com/company/szaboscandic

Data Sheet (Cat.No.T2386)

TargetMol

Pirfenidone

Chemical Properties



CAS No. : 53179-13-8

Formula: C12H11NO

Molecular Weight: 185.22

Appearance: no data available

Storage: keep away from direct sunlight,keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Pirfenidone (AMR69) inhibits the production of CCL2 and CCL12 in fibroblasts and also decreases TGF-β2 protein levels. Pirfenidone is an antifibrotic agent that is commonly used in studies related to pulmonary fibrosis and also has anti-inflammatory activity.
Targets(IC50)	CCR,TGF-beta/Smad
In vitro	**METHODS**: Mouse macrophage-like cell line RAW264.7 was treated with lipopolysaccharide (1 μg/mL) and Pirfenidone (30-300 μg/mL) for 8 h. TNF-α was detected by ELISA assay. **RESULTS**: Exposure of RAW264.7 cells to Pirfenidone significantly inhibited cell-associated and secreted TNF-α levels. [1] **METHODS**: Three stromal cell lines from control lungs and three cell lines derived from idiopathic pulmonary fibrosis (IPF) were treated with Pirfenidone (0.1-1 mM) for 6 days and cell viability was measured by MTT assay. **RESULTS**: Pirfenidone inhibited cell proliferation in a dose-dependent manner. on day 6 of 1 mM Pirfenidone treatment, proliferation was reduced to 47% for control cells and 42% for IPF cells. [2]
In vivo	**METHODS**: To examine the effect of Pirfenidone on pulmonary fibrosis, Pirfenidone (30-100 mg/kg, 0.5% carboxymethylcellulose) was administered orally three times a day for 42 days to ICR mice with bleomycin-induced pulmonary fibrosis. **RESULTS**: Pirfenidone inhibited pulmonary inflammatory edema and significantly suppressed pulmonary fibrosis. During the development of bleomycin-induced pulmonary fibrosis in mice, Pirfenidone exerted its antifibrotic effects by regulating the levels of lung IFN-γ, bFGF and TGF-β1. [3]
Cell Research	Pirfenidone (PFD) is dissolved in DMSO and stored, and then diluted with appropriate media before use[3]. HLECs are seeded in 96-well plates (1×104 cells/well) for 24 hours in α-MEM/10% FBS/1%NEAA, and are cultured in stationary tubes in serum-free medium for 24 hours. And then the culture medium is removed and cells are bathed in α-MEM with 10% FBS and 1% NEAA supplemented with 0, 0.01, 0.1, 0.2, 0.3, 0.5, or 1 mg/mL Pirfenidone for 0, 4, 12, 24, 48, or 72 hours. After incubation with 180 μL α-MEM and 20 μL of 5 mg/mL MTT for 4 hours at 37°C, the MTT solution is discarded. The Formosan precipitates are dissolved in 180 μL DMSO by agitating the dishes for 10 minutes at 200 rpm on an orbital shaker. The absorbance at 490 nm in each well is read with a micro plate reader. We further examined the effects of PFD by refining the concentrations at

	0.2, 0.25, 0.3, 0.4, 0.5 and 0.6 mg/mL using the MTT assay[3].

Solubility Information

Solubility	DMSO: 100 mg/mL (539.9 mM) 5% DMSO+95% Saline: 1.85 mg/mL (9.99 mM) H2O: 25 mg/ml (134.96 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.399 mL	26.9949 mL	53.9898 mL
5 mM	1.0798 mL	5.399 mL	10.798 mL
10 mM	0.5399 mL	2.6995 mL	5.399 mL
50 mM	0.108 mL	0.5399 mL	1.0798 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

Burghardt I, et al. Pirfenidone inhibits TGF-beta expression in malignant glioma cells. Biochem Biophys Res Commun. 2007 Mar 9;354(2):542-7.