**Product Name**: Pirfenidone

**Catalog Number**: T2386

**CAS Number**: 53179-13-8

**Molecular Formula**: C12H11NO

**Molecular Weight**: 185.22

**Appearance**: Solid

**Description**: Pirfenidone is an inhibitor for TGF-β production and TGF-β stimulated collagen production. Pirfenidone inhibits fibroblast, epidermal, platelet-derived, and transforming beta-1 growth factors, thereby slowing tumor cell proliferation. This agent also inhibits DNA synthesis and the production of mRNA for collagen types I and III, resulting in a reduction in radiation-induced fibrosis.

**Storage**: 2 years -80°C in solvent; 3 years -20°C powder;

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<th>Solubility</th>
<th>DMSO</th>
<th>199.8 mM</th>
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<td>(&lt; 1 mg/ml refers to the product slightly soluble or insoluble)</td>
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<th>Receptor (IC50)</th>
<th>TGFβ2</th>
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**Cell Assay**
Pirfenidone (PFD) is dissolved in DMSO and stored, and then diluted with appropriate media before use[3]. HLECs are seeded in 96-well plates (1×10^4 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].

**Animal Experiment**
Animal Model: Sprague-Dawley rats receiving a low-salt diet

**Reference**

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