Effects of RXC007, a highly potent and selective ROCK2 inhibitor, in ex-vivo and in vivo models of pulmonary fibrosis

Adriana Gambardella¹  Peter R. Bunyard¹  Emily Offer²  Nicolas E.S. Guisot¹
¹Redx Pharma plc  ²Medicines Discovery Catapult

INTRODUCTION

ROCK2 is an Attractive Fibrosis Target

- ROCK2 is a member of the Rho-associated, Coiled-coil Containing Kinases (ROCKs) family.
- ROCK2 is activated downstream of RhoA.
- ROCK2 activation is involved in several cellular processes, including cell migration, invasion, and proliferation.

Rationale for Targeting ROCK2 in IPF

- ROCK2 activity is enhanced in IPF patients compared to healthy controls.
- ROCK2 activation is associated with increased fibroblast activity.

RESULTS

RXC007 Reduces Fibrosis and Collagen Deposition in a Murine Bleomycin-induced Lung Fibrosis Model

- RXC007 treatment significantly reduces fibrosis and collagen deposition.
- RXC007 treatment is associated with reduced markers of fibroblast activation.

RXC007 Modulates Pro-fibrotic Gene and Protein Expression in Human IPF Ex-vivo Lung Tissue

- RXC007 treatment modulates the expression of pro-fibrotic genes.
- RXC007 treatment reduces the expression of genes associated with immune regulation.

SUMMARY

- RXC007 is a highly potent and selective ROCK2 inhibitor.
- RXC007 treatment ameliorates experimental pulmonary fibrosis.
- RXC007 treatment reduces fibrosis and collagen deposition in a murine model.
- RXC007 treatment modulates pro-fibrotic gene expression in human IPF ex-vivo lung tissue.

**References:**


**QR Code:**

https://www.redxpharma.com/