**Proteins** 

# **Screening Libraries**

# FR 167653 free base

Cat. No.: HY-18754 CAS No.: 158876-65-4 Molecular Formula:  $\mathsf{C}_{24}\mathsf{H}_{18}\mathsf{FN}_5\mathsf{O}_2$ 

Molecular Weight: 427.43

Target: p38 MAPK; Autophagy

Pathway: MAPK/ERK Pathway; Autophagy

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

**Product** Data Sheet

# **BIOLOGICAL ACTIVITY**

Description FR 167653 free base, an orally active and selective p38 MAPK inhibitor, is a potent suppressor of TNF- $\alpha$  and IL-1 $\beta$  production via specific inhibition of p38 MAPK activity. FR 167653 free base is effective in treating inflammation, relieving trauma and ischemia-reperfusion injury in vivo<sup>[1][2][3]</sup>.

In Vivo

FR 167653 free base (32 mg/kg; i.h.; 24-48 hours) significantly decreases the extent of acute tubular necrosis<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Inbred male Balbuc mice (aged 8 weeks) <sup>[1]</sup>
Dosage:	32 mg/kg
Administration:	Subcutaneous injection; 24-48 hours
Result:	The scores of acute tubular necrosis in FR-167653-treated mice were significantly lower in vehicle-treated mice at 24 and 48 h after ischaemiaureperfusion both in cortex and outer medulla.

# **REFERENCES**

[1]. Furuichi K, et al. Administration of FR167653, a new anti-inflammatory compound, prevents renal ischaemia/reperfusion injury in mice. Nephrol Dial Transplant. 2002 Mar;17(3):399-407.

[2]. Iwata Y, et al. p38 Mitogen-activated protein kinase contributes to autoimmune renal injury in MRL-Fas lpr mice. J Am Soc Nephrol. 2003 Jan;14(1):57-67.

[3]. Kawashima Y, et al. FR167653 attenuates ischemia and reperfusion injury of the rat lung with suppressing p38mitogen-activated protein kinase. J Heart Lung Transplant. 2001 May;20(5):568-74.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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