

Product Datasheet

PT262

Catalog No. **BP-00020** · CAS **86811-36-1** · Form **free base** · Physical state **solid** · Color **Brown to reddish brown** · Version **1.0**
· Revision **2026-09-15**

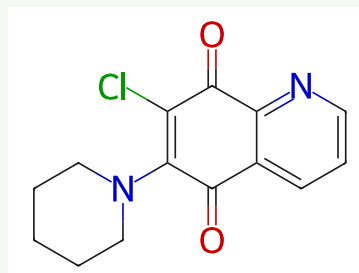
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Target ROCK; ERK; CDK; Apoptosis	Research area Cancer
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Molecular formula **C₁₄H₁₃ClN₂O₂**

Molecular weight **276.7180**

STRUCTURE



DESCRIPTION

PT-262 is a potent ROCK inhibitor with an IC₅₀ value of around 5 μM. PT-262 induces the loss of mitochondrial membrane potential and elevates the caspase-3 activation and apoptosis. PT-262 inhibits the ERK and CDC2 phosphorylation via a p53-independent pathway. PT-262 blocks cytoskeleton function and cell migration. PT-262 has anti-cancer activity.

BIOLOGICAL ACTIVITY

In Vitro

PT-262 (5-40 μM; 24 h) induces cytotoxicity and proliferation inhibition in human lung cancer cells.

PT-262 (2-20 μM; 4-24 h) induces caspase-3 activation, mitochondrial dysfunction and apoptosis in lung cancer cells.

PT-262 (10-20 μM; 24 h) induces the accumulation of G2/M phases in both the p53-wild type and p53-null lung cancer cells, and inhibits the phosphorylation of CDC2 proteins.

PT-262 (0-10 μM; 24 h) represses ERK phosphorylation in lung cancer cells.

PT-262 (2 μM; 24 h) induces the cytoskeleton alteration and cell elongation in lung carcinoma A549 cells.

PT-262 (2-10 μM; 6 h) significantly blocks the cell migration in a concentration-dependent manner.

SOLUBILITY

Soluble in DMSO : 100 mg/mL

REFERENCES

[1]. Tzu-Sheng Hsu, et al. 7-Chloro-6-piperidin-1-yl-quinoline-5,8-dione (PT-262), a novel synthetic compound induces lung carcinoma cell death associated with inhibiting ERK and CDC2 phosphorylation via a p53-independent pathway. *Cancer Chemother Pharmacol.* 2008 Oct;62(5):799-808.

[2]. Chih-Chien Tsai, et al. 7-Chloro-6-piperidin-1-yl-quinoline-5,8-dione (PT-262), a novel ROCK inhibitor blocks cytoskeleton function and cell migration. *Biochem Pharmacol.* 2011 Apr 1;81(7):856-65.

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