Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Thiabendazole

Catalog No: tcsc2250

Available Sizes

Size: 1g

Size: 5g

Specifications

CAS No:
148-79-8

Formula:
$C_{10}H_7N_3S$

Pathway:
Metabolic Enzyme/Protease

Target:
Mitochondrial Metabolism

Purity / Grade:
>98%

Solubility:
DMSO : 50 mg/mL (248.45 mM; Need ultrasonic); H2O :

Alternative Names:
2-(4-Thiazolyl)benzimidazole

Observed Molecular Weight:
201.25

Product Description

Thiabendazole inhibites the mitochondrial helminth-specific enzyme, fumarate reductase, with anthelminthic property.

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Target: Fumarate Reductase

Tiabendazole serves to block angiogenesis in both frog embryos and human cells. It has also been shown to serve as a vascular disrupting agent to reduce newly established blood vessels. Tiabendazole has been shown to effectively do this in certain cancer cells. Thiabendazole works by inhibition of the mitochondrial, helminth-specific enzyme, fumarate reductase, with possible interaction with endogenous quinone [1].

Thiabendazole inhibited B16F10 proliferation in vitro in a dose- and time-dependent manner with an IC50 of 532.4 +/- 32.6, 322.9 +/- 28.9, 238.5 +/- 19.8 microM at 24, 48, and 72 h, respectively. Moreover, thiabendazole inhibited the angiogenesis and the migration of B16F10 cells in vitro. Furthermore, thiabendazole restrained transcription and translation of the VEGF gene in B16F10 in vitro, and the apoptotic percentage of B16F10 cells was increased after exposure to thiabendazole [2].