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

Uric acid

Catalog No: tcsc0020287

Available Sizes

Size: 100g

Size: 500g

Size: 1000g

Specifications

CAS No:
69-93-2

Formula:
$C_5H_4N_4O_3$

Pathway:
Metabolic Enzyme/Protease

Target:
Endogenous Metabolite

Purity / Grade:
>98%

Solubility:
H2O :

Observed Molecular Weight:
168.11

Product Description

Uric acid is an endogenous antioxidant that scavenges reactive oxygen species (ROS) including singlet oxygen, oxygen radicals, and peroxynitrite.

In Vitro:

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Uric acid is an endogenous antioxidant that scavenges reactive oxygen species (ROS) including singlet oxygen, oxygen radicals, and peroxynitrite. Incubation with indomethacin significantly increases malondialdehyde (MDA) levels in Caco-2 cells compare to those not treated indomethacin. Incubation with both indomethacin and Uric acid significantly decreases MDA levels compare to those grown in the presence of indomethacin alone. Co-treatment of cells with indomethacin and Uric acid significantly decreases ROS levels compare to those in cells incubated with indomethacin alone. Cell viability in Caco-2 cells treated with both indomethacin and Uric acid is higher than that in cells treated with indomethacin alone. Uric acid has a protective effect on indomethacin-induced intestinal cell changes through its antioxidant activity[1].

In Vivo: When mice treated with indomethacin are concurrently administered Uric acid orally, ulcer areas are significantly reduced, in a Uric acid dose-dependent manner. Indomethacin increases the ratio of crypt depth to villous height in the ileum, while the ratio is significantly lower when mice are concurrently administered Uric acid orally. Administration of indomethacin also increases the histopathological score of tissue damage in the small intestine, while mice concurrently administered Uric acid orally has a significantly lower histopathological score. The ileal levels of malondialdehyde (MDA) in indomethacin-induced enteropathy model mice orally administered Uric acid are also significantly lower than the levels in mice administered indomethacin alone[1].