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

Bardoxolone

Catalog No: tcsc0728

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
218600-44-3

Formula:
$C_{31}H_{41}NO_4$

Pathway:
NF-κB

Target:
Keap1-Nrf2

Purity / Grade:
>98%

Solubility:
DMSO : 100 mg/mL (203.39 mM; Need ultrasonic)

Alternative Names:
CDDO;RTA 401

Observed Molecular Weight:
491.66

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Product Description

Bardoxolone is a novel nuclear regulator factor (**Nrf-2**) activator.

IC50 & Target: Nrf-2[1]

In Vitro: Bardoxolone methyl, a novel synthetic triterpenoid and antioxidant inflammation modulator, potently induces Nrf2 and inhibits NF-κB and Janus-activated kinase/STAT signaling. Bardoxolone methyl has been shown to induce differentiation, inhibit proliferation, and induce apoptosis in cancer cell lines[2].

In Vivo: Kidney sections from Bardoxolone methyl-treated monkeys demonstrates decreased megalin protein expression despite similar mRNA expression across groups. The visualized decrease in megalin protein expression is confirmed by densitometry analyses, which demonstrated that Bardoxolone methyl administration significantly decreased megalin protein expression in the monkey kidney. Bardoxolone methyl administration does not affect the protein expression of cubilin in the kidney or the mRNA expression of cubilin in the kidney. The creatinine clearance in monkeys administered Bardoxolone methyl significantly differed from that at baseline and in vehicle-treated animals on day 28. After 28 days of Bardoxolone methyl administration, urinary albumin-to-creatinine ratios (UACRs), determined from the 24-hour urine collections, are significantly increased compared with those in animals receiving vehicle. Of note, UACRs decreases 53.3% in vehicle-treated animals and increased 27.9% in Bardoxolone methyl-treated monkeys[3]. Male C57BL/6J mice are administered oral BARD during HFD feeding (HFD/BARD), only fed a high-fat diet (HFD), or fed low-fat diet (LFD) for 21 weeks. Compared with LFD mice, HFD mice have a marked increase in the number of F4/80 crown-like structures (+95%; p[4].