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

Febuxostat

Catalog No: tcsc0403

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
144060-53-7

Formula:
$C_{16}H_{16}N_2O_3S$

Pathway:
Metabolic Enzyme/Protease

Target:
Xanthine Oxidase

Purity / Grade:
>98%

Solubility:
DMSO : 50 mg/mL (158.04 mM; Need ultrasonic)

Alternative Names:
TEI 6720;TMX 67

Observed Molecular Weight:
316.37

Product Description

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Febuxostat(TEI 6720;TMX 67) is selective xanthine oxidase inhibitor with Ki of 0.6 nM.

IC50 value: 0.6 nM (Ki) [1]

Target: xanthine oxidase

in vitro: Febuxostat displays potent mixed-type inhibition of the activity of purified bovine milk xanthine oxidase, with Ki and Ki\' values of 0.6 nM and 3.1 nM respectively, indicating inhibition of both the oxidized and reduced forms of xanthine oxidase [1].

in vivo: Febuxostat (5–6 mg/kg/day) combined with fructose significantly lowers blood pressure, UA, triglycerides, and insulin in rats compared with fructose alone. Febuxostat (5–6 mg/kg/day) combined with fructose also reduces glomerular pressure, renal vasoconstriction, and afferent arteriolar area in rats compared with fructose alone [2]. Febuxostat prevents hyperuricemia in 5/6 nephrectomy (5/6 Nx)+oxonic acid (OA)+Febuxostat(Fx) rats and ameliorates proteinuria, preserves renal function and prevents glomerular hypertension in both 5/6 nephrectomy (5/6 Nx)+vehicle (V)+Febuxostat(Fx) and 5/6 nephrectomy (5/6 Nx)+oxonic acid (OA)+Febuxostat(Fx) groups [3]. Febuxostat (5 mg/kg/d by gavage for 8 days) treatment after transverse aortic constriction (TAC) attenuates the TAC-induced left ventricular (LV) hypertrophy and dysfunction. Febuxostat blunts the TAC-induced increases in nitrotyrosine (indicating reduced myocardial oxidative stress), p-Erk(Thr202/Tyr204), and p-mTOR(Ser2488), with no effect on total Erk or total mTOR [4].