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

Pimobendan (hydrochloride)

Catalog No: tcsc2144

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
77469-98-8

Formula:
$C_{19}H_{19}ClN_4O_2$

Pathway:
Metabolic Enzyme/Protease

Target:
Phosphodiesterase (PDE)

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
UD-CG115 (hydrochloride)

Observed Molecular Weight:
370.83

Product Description

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Pimobendan hydrochloride is a selective inhibitor of PDE3 with IC50 of 0.32 μM.

Target: PDE3

Pimobendan exhibits selective inhibition of PDE III isolated from guinea pig cardiac muscle with IC50 of 0.32 uM compared to the inhibition of PDE I and PDE II (IC50s >30 μM). In human atrial cells, 100 μM pimobendan significantly increases the L-type calcium current (ICa(L)) (evoked by depolarization to +10 mV from a holding potential of -40 mV) by 250.4% with the half-maximal stimulation (EC50) of 1.13 μM. In rabbit atrial cells, Pimobendan increases ICa(L) at +10 mV by 67.4.%, which is significantly lower than that obtained in human atrial cells

Pimobendan shows a beneficial effect on survival in the murine model of EMC virus-induced myocarditis. Administration of Pimobendan significantly increases the final survival rate from 33.6% (control) to 53.3% (0.1 mg/kg) or 66.7% (1 mg/kg). Pimobendan (1 mg/kg) also significantly reduces myocardial cellular infiltration, the level of intracardiac tumor necrosis factor (TNF)-α and interleukin (IL)-1β compared with the control group, which shows no effect on myocardial necrosis, heart weight and body weight. Pimobendan suppresses expression of the intracardiac iNOS gene , causing reduction of intracardiac NO production.