

Pimobendan

Catalog No: tcsc2143



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

74150-27-9

Formula:

$C_{19}H_{18}N_4O_2$

Pathway:

Metabolic Enzyme/Protease

Target:

Phosphodiesterase (PDE)

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

UD-CG115

Observed Molecular Weight:

334.37

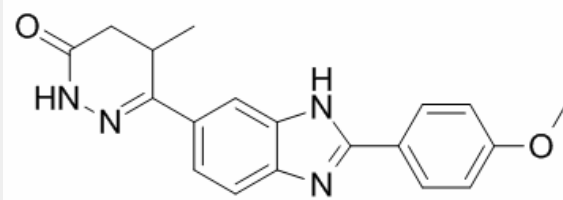
Product Description

Pimobendan is a selective inhibitor of PDE3 with IC₅₀ of 0.32 μ M.

Target: PDE3

Pimobendan exhibits selective inhibition of PDE III isolated from guinea pig cardiac muscle with IC₅₀ of 0.32 μ M compared to the inhibition of PDE I and PDE II (IC₅₀s >30 μ M). In human atrial cells, 100 μ M 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 μ M. 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)-1 β 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.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!