

# 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

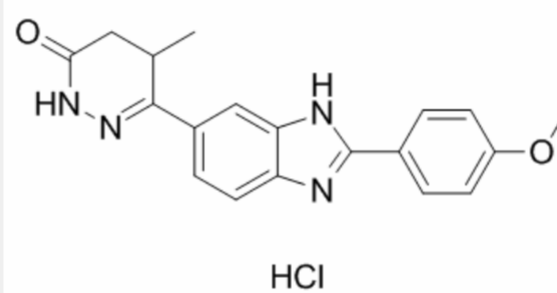
## Product Description

Pimobendan hydrochloride is a selective inhibitor of PDE3 with IC<sub>50</sub> of 0.32  $\mu$ M.

Target: PDE3

Pimobendan exhibits selective inhibition of PDE III isolated from guinea pig cardiac muscle with IC<sub>50</sub> of 0.32  $\mu$ M compared to the inhibition of PDE I and PDE II (IC<sub>50</sub>s >30  $\mu$ M). In human atrial cells, 100  $\mu$ 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 (EC<sub>50</sub>) of 1.13  $\mu$ 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)- $\alpha$  and interleukin (IL)-1 $\beta$  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!