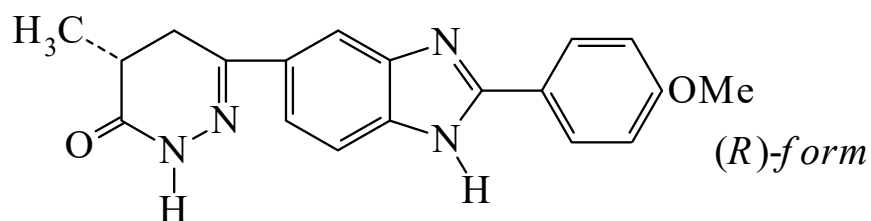




>>Entry Name: **Pimobendan**, INN, USAN

Synonym(s): 4,5-Dihydro-6-[2-(4-methoxyphenyl)-1*H*-benzimidazol-5-yl]-5-methyl-3(2*H*)-pyridazinone, 9Cl. Acordi. Acardi. UD CG 115 BS



CAS Registry Number: 74150-27-9

Related CAS Registry Numbers(s): 118428-36-7 118428-37-8 118428-38-9

Molecular Formula: C₁₉H₁₈N₄O₂

Molecular Weight: 334.377

Accurate Mass: 334.142976

Percentage Composition: C 68.25%; H 5.43%; N 16.76%; O 9.57%

Use/Importance: Partial phosphodiesterase (type III) inhibitor; shows positive inotropic and vasodilatory activity. Used in the treatment of congestive heart failure

Development Status: Launched 1994 (Japan)

Other Data: (S)-Isomer is 1.5 times more potent than the (R)-isomer

Hazard & Toxicity: LD₅₀ (rat, orl) 950 mg/kg. LD₅₀ (rat, ivn) 72 mg/kg. Exp. reprod. and fetotoxic effects

>>Variant: (±)-form

Molecular Formula: C₁₉H₁₈N₄O₂

Molecular Weight: 334.377

Accurate Mass: 334.142976

Percentage Composition: C 68.25%; H 5.43%; N 16.76%; O 9.57%

>>Derivative: Hydrochloride

CAS Registry Number: 74149-75-0

Melting Point: Mp 311-314°

References:

- Ger. Pat.*, 1980, *Dr Karl Thomae*, 2 837 161; *CA*, **93**, 46705g, (*synth, pharmacol*)
van Meel, J.C.A., *Arzneim.-Forsch.*, 1985, **35**, 284; 1995, **45**, 136, (*pharmacol*)
Verdouw, P.D. *et al.*, *Eur. J. Pharmacol.*, 1986, **126**, 121, (*pharmacol*)
Duncker, D.J. *et al.*, *Br. J. Pharmacol.*, 1987, **91**, 609, (*pharmacol*)
Chu, K.-M. *et al.*, *J. Chromatogr. Sci.*, 1992, **30**, 171, (*hplc, sepn*)
Asakura, M. *et al.*, *J. Chromatogr.*, 1993, **614**, 135, (*hplc, sepn*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, 1993, 672
Fitton, A. *et al.*, *Drugs Aging*, 1994, **4**, 417, (*rev*)
Remme, W.J. *et al.*, *J. Cardiovasc. Pharmacol.*, 1994, **24**, 730, (*pharmacol, human*)