

Product Name: Cromakalim

Catalog No.: 1377

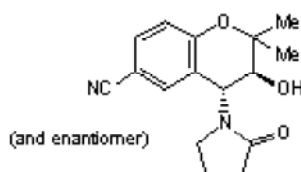
Batch No.: 1

CAS Number: 94470-67-4

IUPAC Name: *trans*-3,4-dihydro-3-hydroxy-2,2-dimethyl-4-(2-oxo-1-pyrrolidinyl)-2H-1-benzopyran-6-carbonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₈N₂O₃
Batch Molecular Weight: 286.33
Physical Appearance: White solid
Solubility: DMSO to 20 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Dichloromethane:Methanol:Ammonia soln. [9:1:0.1])
Melting Point: At 237°C
HPLC: Shows >99.9% purity
¹H NMR: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen		
Theoretical	67.12	6.34	9.78	0	0
Found	67.13	6.37	9.68	0	0

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
 Tel: (800) 343 7475

China
info.cn@bio-techne.com
 Tel: +86 (21) 52380373

Europe Middle East Africa
 Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
 Tel:+1 612 379 2956

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Description:

Prototypical K_{ir6} (K_{ATP}) channel opener. Relaxes rabbit isolated portal vein with an IC_{50} value of 21 nM. Potent, orally active and hypotensive in vivo. Active Enantiomer also available.

Physical and Chemical Properties:

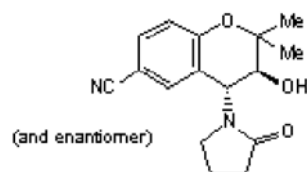
Batch Molecular Formula: $C_{16}H_{18}N_2O_3$

Batch Molecular Weight: 286.33

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold under license

References:

Escande et al (1988) The potassium channel opener cromakalim (BRL 34915) activates ATP-dependent K^+ channels in isolated cardiac myocytes. *Biochem.Biophys.Res.Commun.* **154** 620. PMID: 2456760.

Longman et al (1988) Cromakalim, a potassium channel activator: a comparison of its cardiovascular haemodynamic profile and tissue specificity with those of pinacidil and nicorandil. *J.Cardiovasc.Pharmacol.* **12** 535. PMID: 2468052.

Wilson et al (1988) Comparative effects of K^+ channel blockade on the vasorelaxant activity of cromakalim, pinacidil and nicorandil. *Eur.J.Pharmacol.* **152** 331. PMID: 2851450.

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