Certificate of Analysis

Product Name: **(-)-[3*R*,4*S*]-Chromanol 293B** **Catalog No.: 1475** **Batch No.: 2**

CAS Number: 163163-24-4

IUPAC Name: *N*-[(3*R*,4*S*)-6-Cyano-3,4-dihydro-3-hydroxy-2,2-dimethyl-2*H*-1-benzopyran-4-yl]-*N*-methylethanesulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{15}H_{20}N_2O_4S$

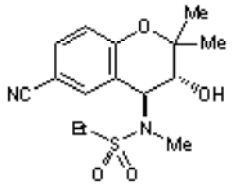
Batch Molecular Weight: 324.39

Physical Appearance: White crystalline solid

Solubility: ethanol to 100 mM with gentle warming
DMSO to 100 mM with gentle warming

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.72 (Dichloromethane:Methanol:Ammonia soln. [9:1:0.1])

Melting Point: Between 197 - 199°C

HPLC: Shows 99.8% purity

Chiral HPLC: Shows 100% purity

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	55.54	6.21	8.64
Found	55.32	6.18	8.63

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

Product Information

Product Name: **(-)-[3*R*,4*S*]-Chromanol 293B** **Catalog No.: 1475** **Batch No.: 2**

CAS Number: 163163-24-4

IUPAC Name: *N*-[(3*R*,4*S*)-6-Cyano-3,4-dihydro-3-hydroxy-2,2-dimethyl-2*H*-1-benzopyran-4-yl]-*N*-methylethanesulfonamide

Description:

Enantiomer that selectively inhibits the slow component of delayed rectifier K^+ current (I_{Ks}). Block is use-dependent and 7-fold more potent than the (+)-(3S,4R) enantiomer (IC_{50} values are 1.36 and 9.6 µM respectively). Has negligible inhibitory action at K_V11.1 (hERG) channels (IC_{50} > 30 µM). Racemate also available.

Physical and Chemical Properties:

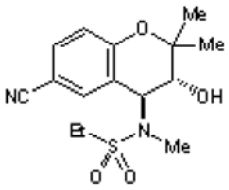
Batch Molecular Formula: $C_{15}H_{20}N_2O_4S$

Batch Molecular Weight: 324.39

Physical Appearance: White crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

ethanol to 100 mM with gentle warming
DMSO to 100 mM with gentle warming

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.

References:

Lerche *et al* (2001) Molecular impact of MinK on the enantiospecific block of I_{Ks} by chromanols. Br.J.Pharmacol. ***131*** 1503. PMID: 11139424.

Seebohm *et al* (2001) A kinetic study on the stereospecific inhibition of KCNQ1 and I_{Ks} by the chromanol 293B. Br.J.Pharmacol. ***134*** 1647. PMID: 11739240.

Yang *et al* (2000) Stereoselective interactions of the enantiomers of chromanol 293B with human voltage-gated potassium channels. J.Pharmacol.Exp.Ther. ***294*** 955. PMID: 10945846.