# PRODUCT INFORMATION



# Chromanol 293B

Item No. 19993

CAS Registry No.: 163163-23-3

Formal Name: rel-N-[(3R,4S)-6-cyano-3,4-dihydro-3-

hydroxy-2,2-dimethyl-2H-1-benzopyran-4-

yl]-N-methyl-ethanesulfonamide

Synonym: Chromanol 239B MF:  $C_{15}H_{20}N_2O_4S$ 

FW: 324.4 Purity: ≥98%

UV/Vis.:  $\lambda_{\text{max}}$ : 252 nm Supplied as: A crystalline solid

-20°C Storage: Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

# **Laboratory Procedures**

Chromanol 293B is supplied as a crystalline solid. A stock solution may be made by dissolving the chromanol 293B in the solvent of choice, which should be purged with an inert gas. Chromanol 293B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of chromanol 293B in ethanol is approximately 2 mg/ml and approximately 30 mg/ml in DMSO and DMF.

#### Description

Chromanol 293B is a blocker of slowly activating delayed rectifier  $K^+$  current ( $I_{KS}$ ) with an  $IC_{50}$  value of 6.89  $\mu$ M in Xenopus oocytes expressing rat I<sub>Ks</sub> channels. It is selective, having no activity at rat K<sub>v</sub>1.1 or  $K_{ir}2.1$  channels at a concentration of 30  $\mu$ M. Chromanol 293B increases the rate and extent of  $I_{Ks}$  in guinea pig ventricular cells in a dose-dependent manner.<sup>2</sup> It also inhibits cystic fibrosis transmembrane conductance regulator (CTFR) Cl<sup>-</sup> currents ( $I_{CTFR}$ ) with an  $IC_{50}$  value of 19  $\mu$ M in Xenopus oocytes expressing human CTFR.3

## References

- 1. Suessbrich, H., Bleich, M., Ecke, D., et al. Specific blockade of slowly activating I<sub>sK</sub> channels by chromanols -- Impact on the role of I<sub>sk</sub> channels in epithelia. FEBS Lett. **396(2-3)**, 271-275 (1996).
- 2. Fujisawa, S., K., O. and lijima, T. Time-dependent block of the slowly activating delayed rectifier K<sup>+</sup> current by chromanol 293B in guinea-pig ventricular cells. Br. J. Pharmacol. 129(5), 1007-1013 (2000).
- 3. Bachmann, A., Quast, U., and Russ, U. Chromanol 293B, a blocker of the slow delayed rectifier K+ current (I<sub>Ks</sub>), inhibits the CFTR Cl<sup>-</sup> current. Naunyn Schmiedebergs Arch. Pharmacol. 363(6), 590-596 (2001).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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