Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

Chromanol 293B

Product overview

Name	Chromanol 293B
Cat No	HB0988
Biological action	Blocker
Purity	>99%
Description	K_v7.1 channel blocker

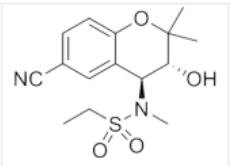
Biological Data

Biological description	K_v7.1 channel blocker (also known as the slow delayed rectifier or I_{Ks} channel). Blocks the K^+ current (IC_{50} = 1.8 µM). Selective for the KCNQ1 subunit combined with KCNE3 over KCNE1 (IC_{50} values are 0.54 and 15.1 µM respectively). Also blocks the CFTR chloride current (I_{CFTR}) and K_v4.3 channel I_{to} transient outward current (IC_{50} values are 19 and 38 µM respectively).

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in ethanol (20mM) or DMSO (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	*trans-N* -[6-Cyano-3,4-dihydro-3-hydroxy-2,2-dimethyl-2*H*-1-benzopyran-4-yl]-*N*-methyl-ethanesulfonamide
Molecular Weight	324.39
Chemical structure	
Molecular Formula	$C_{15}H_{20}N_2O_4S$
CAS Number	163163-23-3
PubChem identifier	6483057
SMILES	O[C@H]1[C@H](N(C)S(=O)(CC)=O)C2=C(C=CC(C#N)=C2)OC(C)1C.O[C@@H]3[C@@H](N(C)S(=O)(CC)=O)C4=C(C=CC(C#N)=C4)OC(C)3C
InChiKey	CUJUUWXZAQHCNC-DOFZRALJSA-N

References

Chromanol 293B, a blocker of the slow delayed rectifier K+ current (IKs), inhibits the CFTR Cl- current.

Bachmann A *et al* (2001) Naunyn Schmiedebergs Arch Pharmacol 363(6)
PubMedID 11414653

Chromanol 293B inhibits slowly activating delayed rectifier and transient outward currents in canine left ventricular myocytes.

Sun ZQ *et al* (2001) J Cardiovasc Electrophysiol 12(4)
PubMedID 11332571

Ancillary subunits and stimulation frequency determine the potency of chromanol 293B block of the KCNQ1 potassium channel.

Bett GC *et al* (2006) J Physiol 576(Pt 3)
PubMedID 16887873