

Certificate of Analysis

Print Date: Jul 13th 2022

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Product Name: HMR 1556 Catalog No.: 5011 Batch No.: 3

CAS Number: 223749-46-0

IUPAC Name: N-[(3R,4S)-3,4-Dihydro-3-hydroxy-2,2-dimethyl-6-(4,4,4-trifluorobutoxy)-2H-1-benzopyran-4-yl]

-N-methylmetanesulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₂₄F₃NO₅S

Batch Molecular Weight: 411.44 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM

ethanol to 20 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.06$ (Ethyl acetate:Petroleum ether [3:7])

HPLC: Shows 99.3% purity
Chiral HPLC: Shows >99.7% purity

¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 49.63 5.88 3.4 Found 49.94 5.88 3.3

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



Product Information

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Description:

HMR 1556 is a potent and selective $I_{\rm Ks}$ channel blocker (IC $_{\rm 50}$ values are 10.5 and 34 nM in canine and guinea pig ventricular myocytes respectively). Selectively inhibits $I_{\rm Ks}$ currents over $I_{\rm Kr}$, $I_{\rm Kl}$, $I_{\rm to}$ and L-type Ca $^{2+}$ channel currents. Also has little or no effect on $K_v11.1~K_v1.5,~K_v1.3,~K_{ir}2.1$ and HCN2 channel currents. Potentiates E-4031-induced arrhythmias in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{17}H_{24}F_3NO_5S$

Batch Molecular Weight: 411.44 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM ethanol 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.

References:

Michael *et al* (2007) Potentiation of E-4031-induced torsade de pointes by HMR1556 or ATX-II is not predicted by action potential short-term variability or triangulation. Br.J.Pharmacol *152* 1215. PMID: 17965747.

Thomas *et al* (2003) HMR 1556, a potent and selective blocker of slowly activating delayed rectifier potassium current. J.Cardiovasc.Pharmacol. *41* 140. PMID: 12500032.

Gerlach et al (2001) Synthesis and activity of novel and selective I(Ks)-channel blockers. J.Med.Chem. 44 3831. PMID: 11689069.