

Certificate of Analysis

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Product Name: RN 1734

Catalog No.: 3746

Batch No.: 2

CAS Number: 946387-07-1

IUPAC Name: 2,4-Dichloro-*N*-isopropyl-*N*-(2-isopropylaminoethyl)benzenesulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₂₂Cl₂N₂O₂S

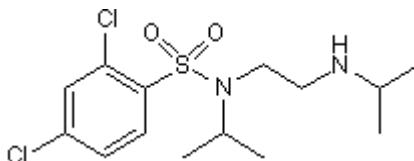
Batch Molecular Weight: 353.31

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 50 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	47.59	6.28	7.93
Found	47.68	6.24	7.99

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

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Description:

Selective TRPV4 antagonist (IC₅₀ values are 2.3, 3.2 and 5.9 μM for hTRPV4, rTRPV4 and mTRPV4 receptors respectively). Displays selectivity for TRPV4 over other TRP channels (IC₅₀ values are 2.3, >30, >30 and >100 μM for TRPV4, TRPV3, TRPM8 and TRPV1 respectively). Blocks TRPV4-mediated arteriole vasodilation and increases myogenic tone ex vivo.

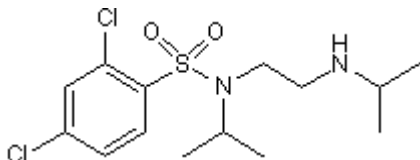
Physical and Chemical Properties:

Batch Molecular Formula: C₁₄H₂₂Cl₂N₂O₂S

Batch Molecular Weight: 353.31

Physical Appearance: White solid

Batch Molecular Structure:



References:

Bagher et al (2012) Low intravascular pressure activates endothelial cell TRPV4 channels, local Ca²⁺ events, and IKCa channels, reducing arteriolar tone. *Proc.Natl.Acad.Sci.U.S.A.* **109** 18174. PMID: 23071308.

Vincent et al (2009) Identification and characterization of novel TRPV4 modulators. *Biochem.Biophys.Res.Comms.* **389** 490. PMID: 19737537.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 50 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.

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