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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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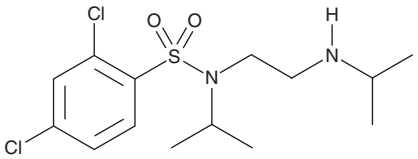
# PRODUCT INFORMATION

## RN-1734

*Item No. 24205*

| | |
|---|---|
| **CAS Registry No.:** | 946387-07-1 |
| **Formal Name:** | 2,4-dichloro-N-(1-methylethyl)-N-[2-[(1-methylethyl)amino]ethyl]-benzenesulfonamide |
| **MF:** | $C_{14}H_{22}Cl_2N_2O_2S$ |
| **FW:** | 353.3 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 207, 238 nm |
| **Supplied as:** | An oil |
| **Storage:** | -20°C |
| **Stability:** | ≥2 years |




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

### Laboratory Procedures

RN-1734 is supplied as an oil. A stock solution may be made by dissolving the RN-1734 in the solvent of choice, which should be purged with an inert gas. RN-1734 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of RN-1734 is approximately 2 mg/ml in ethanol and approximately 20 mg/ml in DMSO and DMF.

RN-1734 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, RN-1734 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. RN-1734 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

RN-1734 is a transient receptor potential vanilloid 4 (TRPV4) antagonist, blocking calcium influx induced by the TRPV4 agonist 4α-phorbol 12,13-didecanoate (Item No. 20446) with $IC_{50}$ values of 2.3, 5.9, and 3.2 µM for human, mouse, and rat TRPV4, respectively.[1] It is selective for TRPV4 over TRPV1, TRPV3, and TRPM8 ($IC_{50}$s = >100, >30, and >30 µM, respectively). RN-1734 (10 µM) reduces GSK1016790A-induced increases in glycine-activated current ($I_{Gly}$) from 34.5 to 0.97% in mouse hippocampal neurons *in vitro*.[2] It blocks arteriolar dilation induced by GSK1016790A (Item No. 17289) and increases myogenic tone in rat cremaster arterioles *ex vivo* when used at a concentration of 30 µM.[3] RN-1734 (1 mg/kg, i.p.) reduces edema and MAPK signaling induced by traumatic brain injury in rats.[4] It also inhibits breakdown of the blood-retinal barrier in streptozotocin-induced diabetic rats when administered at a dose of 100 µM.[5]

### References


1. Vincent, F., Acevedo, A., Nguyen, M.T., *et al. Biochem. Biophys. Res. Commun.* **389(3)**, 490-494 (2009).
2. Qi, M., Wu, C., Wang, Z., *et al. Cell Physiol. Biochem.* **45(3)**, 1084-1096 (2018).
3. Bagher, P., Beleznai, T., Kansui, Y., *et al. Proc. Natl. Acad. Sci. U.S.A.* **109(44)**, 18174-18179 (2012).
4. Lu, K.-T., Huang, T.-C., Tsai, Y.-H., *et al. J. Neurochem.* **140(5)**, 718-727 (2017).
5. Arredondo Zamarripa, D., Noguez Imm, R., Bautista Cortés, A.M., *et al. Sci. Rep.* **7(1):13094**, (2017).





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