

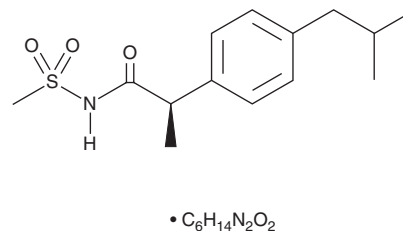
# PRODUCT INFORMATION



## Reparixin (L-Lysine salt)

Item No. 21492

**CAS Registry No.:** 266359-93-7  
**Formal Name:** (αR)-α-methyl-4-(2-methylpropyl)-N-(methylsulfonyl) benzeneacetamide, L-lysine  
**Synonym:** Repertaxin  
**MF:** C<sub>14</sub>H<sub>21</sub>NO<sub>3</sub>S • C<sub>6</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 429.6  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 202 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Reparixin (L-lysine salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the reparixin (L-lysine salt) in the solvent of choice. Reparixin (L-lysine salt) is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 10 mg/ml. Reparixin (L-lysine salt) is slightly soluble in ethanol and dimethyl formamide.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of reparixin (L-lysine salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of reparixin (L-lysine salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Reparixin is a non-competitive allosteric inhibitor of the activation of CXCR1 and CXCR2 chemokine receptors by IL-8 (IC<sub>50</sub>s = 1 and 100 nM, respectively).<sup>1</sup> It blocks a range of activities related to IL-8 signaling, including leukocyte recruitment (IC<sub>50</sub> = 1 nM) and other inflammatory responses, without affecting receptor activation induced by other CXCR1 and CXCR2 agonists.<sup>1</sup> In spontaneously hypertensive rats, 5 mg/kg reparixin administered daily for three weeks reduces blood pressure by inhibiting hypertension-related mediators, IL-8, 12-lipoxygenase, and endothelin-1.<sup>2</sup> Reparixin blockade (100 nM) of CXCR1 depletes a cancer stem cell population in human breast cancer cell lines *in vitro*.<sup>3</sup>

### References

1. Bertini, R., Allegretti, M., Bizzarri, C., *et al.* Noncompetitive allosteric inhibitors of the inflammatory chemokine receptors CXCR1 and CXCR2: Prevention of reperfusion injury. *Proc. Natl. Acad. Sci. USA* **101(32)**, 11791-11796 (2004).
2. Kim, H.Y., Choi, J.H., Kang, Y.J., *et al.* Reparixin, an inhibitor of CXCR1 and CXCR2 receptor activation, attenuates blood pressure and hypertension-related mediators expression in spontaneously hypertensive rats. *Biol. Pharm. Bull.* **34(1)**, 120-127 (2011).
3. Ginestier, C., Liu, S., Diebel, M.E., *et al.* CXCR1 blockade selectively targets human breast cancer stem cells in vitro and in xenografts. *J. Clin. Invest.* **120(2)**, 485-497 (2010).

#### WARNING

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

#### SAFETY DATA

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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/03/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM