

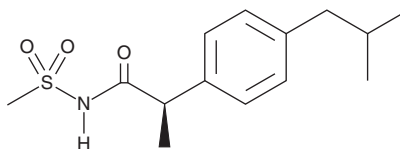
PRODUCT INFORMATION



Reparixin

Item No. 17350

CAS Registry No.: 266359-83-5
Formal Name: (αR)-α-methyl-4-(2-methylpropyl)-N-(methylsulfonyl)-benzeneacetamide
Synonyms: DF 1681Y, Repertaxin
MF: C₁₄H₂₁NO₃S
FW: 283.4
Purity: ≥95%
UV/Vis.: λ_{max}: 220 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 is supplied as a crystalline solid. A stock solution may be made by dissolving the reparixin in the solvent of choice, which should be purged with an inert gas. Reparixin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of reparixin in these solvents is approximately 25, 15, and 10 mg/ml, respectively.

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 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of reparixin in PBS (pH 7.2) is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Reparixin is an allosteric antagonist of chemokine (C-X-C motif) receptor 1 (CXCR1) and CXCR2 (IC₅₀s = 1 and 100 nM, respectively).¹ *In vivo*, reparixin (3, 15, and 30 mg/kg) reduces ischemia and reperfusion-induced hepatic polymorphonuclear leukocyte (PMN) recruitment, hepatic myeloperoxidase (MPO) levels, and serum alanine transaminase (ALT) levels in a rat model of hepatic ischemia. It decreases systolic blood pressure in spontaneously hypertensive rats when administered at a dose of 5 mg/kg.² Reparixin, in combination with docetaxel (Item No. 11637), reduces tumor volume and the number of intratumor cancer stem cells in a SUM159 triple-negative breast cancer (TNBC) mouse xenograft model.³

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.

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