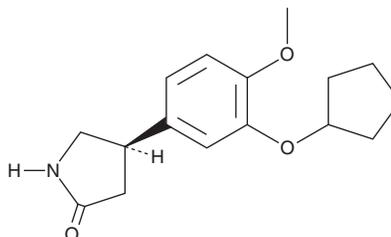


PRODUCT INFORMATION



(-)-Rolipram Item No. 31111

CAS Registry No.: 85416-75-7
Formal Name: (4R)-4-[3-(cyclopentyloxy)-4-methoxyphenyl]-2-pyrrolidinone
Synonyms: (R)-(-)-Rolipram, (R)-Rolipram
MF: C₁₆H₂₁NO₃
FW: 275.3
Purity: ≥98%
Supplied as: A 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

(-)-Rolipram is supplied as a solid. A stock solution may be made by dissolving the (-)-rolipram in the solvent of choice, which should be purged with an inert gas. (-)-Rolipram is soluble in ethanol and DMSO. The solubility of (-)-rolipram in these solvents is approximately 25 mg/ml.

Description

(-)-Rolipram is a phosphodiesterase 4 (PDE4) inhibitor (IC₅₀ = 0.22 μM for the guinea pig eosinophil enzyme) and an enantiomer of (±)-rolipram (Item No. 10011132).¹ It enhances isoprenaline-induced cAMP accumulation in isolated guinea pig eosinophils (EC₅₀ = 0.19 μM). (-)-Rolipram (1-1,000 μM) inhibits TNF and INF-γ production in L1402 CD4⁺ encephalitogenic rat T cells.² It inhibits ovalbumin-induced contraction of tracheal rings isolated from ovalbumin-sensitized guinea pigs when used at a concentration of 1 μM.³ (-)-Rolipram inhibits ovalbumin-induced bronchoconstriction in guinea pigs (ED₅₀ = 0.25 mg/kg).

References

1. Souness, J.E. and Scott, L.C. Stereospecificity of rolipram actions on eosinophil cyclic AMP-specific phosphodiesterase. *Biochem. J.* **291(Pt 1)(Pt 2)**, 389-395 (1993).
2. Sommer, N., Löshmann, P.-A., Northoff, G.H., *et al.* The antidepressant rolipram suppresses cytokine production and prevents autoimmune encephalomyelitis. *Nat. Med.* **1(3)**, 244-248 (1995).
3. Underwood, D.C., Osborn, R.R., Novak, L.B., *et al.* Inhibition of antigen-induced bronchoconstriction and eosinophil infiltration in the guinea pig by the cyclic AMP-specific phosphodiesterase inhibitor, rolipram. *J. Pharmacol. Exp. Ther.* **266(1)**, 306-313 (1993).

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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