

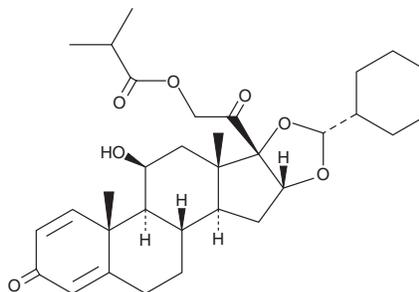
PRODUCT INFORMATION



Ciclesonide

Item No. 18227

CAS Registry No.: 126544-47-6
Formal Name: 16 α ,17-[[[R]-cyclohexylmethylene]bis(oxy)]-11 β -hydroxy-21-(2-methyl-1-oxopropoxy)-pregna-1,4-diene-3,20-dione
Synonyms: CIC, RPR 251526
MF: C₃₂H₄₄O₇
FW: 540.7
Purity: \geq 98%
UV/Vis.: λ_{max} : 243 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Ciclesonide (CIC) is supplied as a crystalline solid. A stock solution may be made by dissolving the CIC in the solvent of choice. CIC is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of CIC in these solvents is approximately 10, 25, and 20 mg/ml, respectively.

CIC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CIC should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CIC 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

CIC is a prodrug form of the glucocorticoid receptor agonist desisobutyryl-CIC (des-CIC).¹ CIC binds to the glucocorticoid receptor with a K_i value of 37 nM.² It is selective for the glucocorticoid receptor over the estrogen, progesterone, and testosterone receptors. CIC inhibits eosinophil influx into the lung (ED_{50} = 0.49 mg/kg) and reduces sephadex-induced lung edema (ED_{50} = 0.72 mg/kg) in a rat model of ovalbumin-sensitized and -challenged airway inflammation. Formulations containing CIC have been used in the maintenance treatment of asthma and in the treatment of allergic rhinitis.

References

1. Derendorf, H., Nave, R., Drollmann, A., *et al.* Relevance of pharmacokinetics and pharmacodynamics of inhaled corticosteroids to asthma. *Eur. Respir. J.* **28(5)**, 1042-1050 (2006).
2. Belvisi, M.G., Bundschuh, D.S., Stoeck, M., *et al.* Preclinical profile of ciclesonide, a novel corticosteroid for the treatment of asthma. *J. Pharmacol. Exp. Ther.* **314(2)**, 568-574 (2005).

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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