

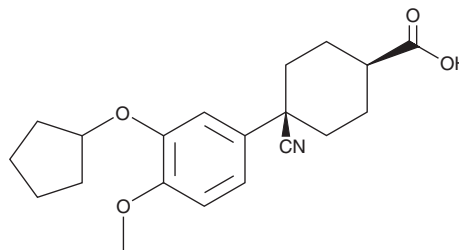
PRODUCT INFORMATION



Cilomilast

Item No. 25979

CAS Registry No.: 153259-65-5
Formal Name: cis-4-cyano-4-[3-(cyclopentyloxy)-4-methoxyphenyl]-cyclohexanecarboxylic acid
Synonym: SB 207499
MF: C₂₀H₂₅NO₄
FW: 343.4
Purity: ≥98%
UV/Vis.: λ_{max}: 232 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

Cilomilast is supplied as a crystalline solid. A stock solution may be made by dissolving the cilomilast in the solvent of choice, which should be purged with an inert gas. Cilomilast is soluble in the organic solvent DMSO at a concentration of approximately 15 mg/ml.

Description

Cilomilast is a second generation inhibitor of phosphodiesterase 4 (PDE4; IC₅₀ = 0.12 μM for the human enzyme).^{1,2} It is selective for human PDE4 over bovine PDE1, rat PDE2, and human PDE3 and -5 (IC₅₀s = 74, 65, >100, and 83 μM, respectively).¹ Cilomilast inhibits LPS-induced production of TNF-α in isolated human monocytes, as well as decreases production of leukotriene B4 (LTB4; Item No. 20110) induced by fMLP (Item No. 21495) in isolated human neutrophils (IC₅₀s = 110 and 40 nM, respectively). It reduces ovalbumin-induced bronchoconstriction and pulmonary eosinophil infiltration in an ovalbumin-sensitized guinea pig model of asthma when administered at doses of 10 and 30 mg/kg.¹

References

1. Christensen, S.B., Guider, A., Forster, C.J., *et al.* 1,4-Cyclohexanecarboxylates: Potent and selective inhibitors of phosphodiesterase 4 for the treatment of asthma. *Comparative Study* **41(6)**, 821-835 (1998).
2. Hatzelmann, A. and Schudt, C. Anti-inflammatory and immunomodulatory potential of the novel PDE4 inhibitor roflumilast in vitro. *J. Pharmacol. Exp. Ther.* **297(1)**, 267-279 (2001).

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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