

Desisobutyryl-ciclesonide

Catalog No: tcsc0042213



Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg



Specifications

CAS No:

161115-59-9

Formula:

$C_{28}H_{38}O_6$

Pathway:

GPCR/G Protein

Target:

Glucocorticoid Receptor

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

CIC-AP;Ciclesonide active principle

Observed Molecular Weight:

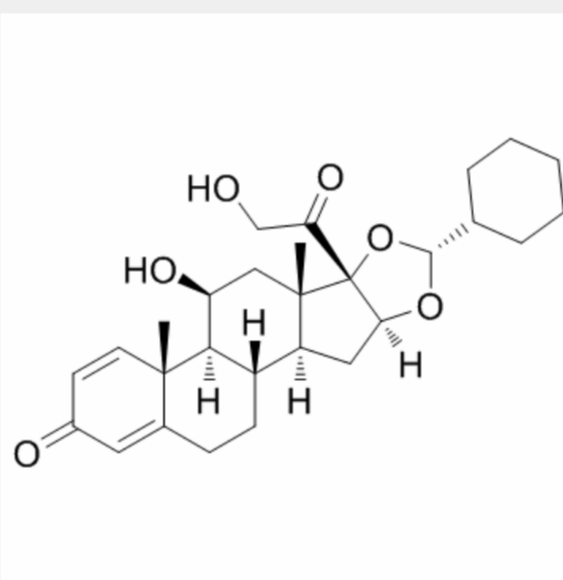
470.6

Product Description

Desisobutyryl-ciclesonide is the active metabolite of Ciclesonide. Desisobutyryl-ciclesonide has affinity for the **glucocorticoid receptor**.

IC50 & Target: Glucocorticoid receptor^[1]

In Vitro: Ciclesonide, an inhaled corticosteroid with almost no affinity for the glucocorticoid receptor, is highly effective in downregulating in vitro pro-inflammatory activities of airway parenchymal cells when converted into the active metabolite Desisobutyryl-ciclesonide. Peripheral blood mononuclear cell proliferation to *C. albicans* is dose-dependently inhibited by 0.3-3.0 μM Ciclesonide and Desisobutyryl-ciclesonide but inhibition by Desisobutyryl-ciclesonide is higher. A significant proliferation to *PhIP5* is observed only in cultures from atopic subjects: an effective downregulation is already detected at 0.03 μM Ciclesonide and 0.003 μM Desisobutyryl-ciclesonide (complete inhibition at 3 μM Ciclesonide and 0.03 μM Desisobutyryl-ciclesonide). 3 μM Ciclesonide and Desisobutyryl-ciclesonide reduce the *PhIP5*-specific T-cell blast proliferation and interleukin 4-producing cell proportion. In PBMCs cultures from atopic patients, both Ciclesonide (CIC) and Desisobutyryl-ciclesonide (des-CIC) induce a dose-dependent downregulation of *PhIP5*-induced proliferation. The effect is already significant at 0.03 μM Ciclesonide and at 0.003 μM Desisobutyryl-ciclesonide (p $PhIP5$ -induced PBMC proliferation is higher for Desisobutyryl-ciclesonide than for Ciclesonide at 0.003 μM (p[1]).



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