

# 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:**

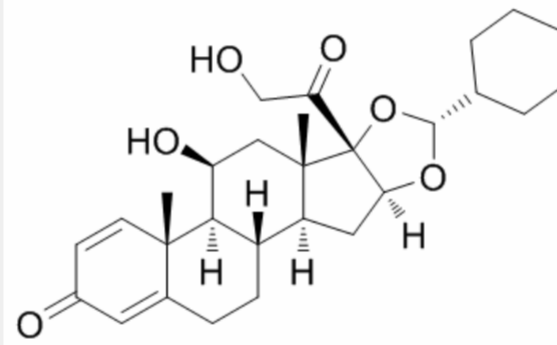
470.6

## Product Description

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

IC50 & Target: Glucocorticoid receptor<sup>[1]</sup>

**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  $\mu\text{M}$  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  $\mu\text{M}$  Ciclesonide and 0.003  $\mu\text{M}$  Desisobutyryl-ciclesonide (complete inhibition at 3  $\mu\text{M}$  Ciclesonide and 0.03  $\mu\text{M}$  Desisobutyryl-ciclesonide). 3  $\mu\text{M}$  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  $\mu\text{M}$  Ciclesonide and at 0.003  $\mu\text{M}$  Desisobutyryl-ciclesonide (p $PhIP5$ -induced PBMC proliferation is higher for Desisobutyryl-ciclesonide than for Ciclesonide at 0.003  $\mu\text{M}$  (p[1]).



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!