Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Cortisone (acetate)

Catalog No: tcsc1742

Available Sizes

Size: 100mg

Size: 500mg

Specifications

CAS No:
50-04-4

Formula:
$C_{23}H_{30}O_6$

Pathway:
GPCR/G Protein

Target:
Glucocorticoid Receptor

Purity / Grade:
>98%

Solubility:
DMSO : 6.8 mg/mL (16.90 mM; Need ultrasonic and warming)

Alternative Names:
Cortisone 21-acetate

Observed Molecular Weight:
402.48

Product Description

Cortisone acetate (17-hydroxy-11-dehydrocorticosterone), a 21-carbon steroid hormone, is one of the main hormones released by the adrenal gland in response to stress.

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IC50 Value:

Target: Glucocorticoid Receptor

in vitro: Cortisone suppressed this apoptosis at a concentration range of 1-10,000 ng/ml (2.8-28,000 nM) dose-dependently. Suppression of cortisol-induced apoptosis by cortisonewas consistently observed in PBMCs derived from 16 healthy subjects. Examination for inhibitory activities of the steroids against [3H]dexamethasone binding to PBMCs suggested that cortisone can bind cellular GC-receptors (GC-Rs), but the affinity of cortisone to GCRs is 1/30 or less than that of cortisol [1]. Apoptosis was also readily induced in primary cultures of third trimester decidual cells when treated with cortisol, cortisone, or dexamethasone (all 100 nM for 24 h) [2].

in vivo: The effects of a single dose of cortisone acetate (5 or 10 mg/100 g body weight) on B cells were examined in young chickens. A dose-dependent increase in numbers of circulating B lymphocytes and a change in their Ig-class distribution were followed by parallel increase in splenic plasma cells and serum immunoglobulins. The higher dose of cortisone produced changes in Bmu and Bgamma cells, whereas the lower dose primarily affected Bmu cells [3]. Adult female CD-1 mice received daily injections of cortisone acetate (0--50 mg/kg subcutaneously) and/or amphotericin B (0--12.5 mg/kg intraperitoneally) in a checkerboard combination dosage pattern for 30 days. Dosages of amphotericin B and cortisone acetate that produced little or no mortality individually produced significant (P less than 0.005) mortality in combination [4].

Toxicity: Oral use of cortisone has a number of potential systemic side-effects: hyperglycemia, insulin resistance, diabetes mellitus, osteoporosis, anxiety, depression, amenorrhoea, cataracts and glaucoma, among other problems.