Certificate of Analysis

www.tocris.com

Product Name: **Budesonide**

CAS Number: 51333-22-3 Catalog No.: 2671

Batch No.: 2

EC Number: 257-139-7

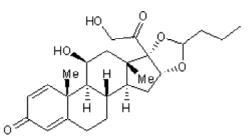
IUPAC Name: $(11\beta, 16\alpha)$ -16,17-[Butylidenebis(oxy)]-11,21-dihydroxypregna-1,4-diene-3,20-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility:

 $C_{25}H_{34}O_{6}$ 430.53 White solid DMSO to 100 mM ethanol to 50 mM Store at RT

Storage: **Batch Molecular Structure:**



2. ANALYTICAL DATA

HPLC: ¹H NMR: Mass Spectrum: **Microanalysis:**

Shows 99.4% purity Consistent with structure Consistent with structure

Carbon Hydrogen Nitrogen

Theoretical	69.74	7.96
Found	69.56	8.04

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Print Date: Oct 24th 2018

TOCRIS a biotechne brand

Product Information

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Batch No.: 2

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IUPAC Name: $(11\beta, 16\alpha)$ -16,17-[Butylidene*bis*(oxy)]-11,21-dihydroxypregna-1,4-diene-3,20-dione

Description:

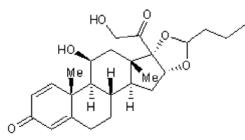
Synthetic anti-inflammatory glucocorticoid that displays chemopreventive activity. Prevents formation of lung adenomas and adenocarcinomas in mice following inhalation or oral administration. Reverses DNA hypomethylation and modulates expression of cancer related genes.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₅H₃₄O₆ Batch Molecular Weight: 430.53 Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info: DMSO to 100 mM

ethanol to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a $45-60^{\circ}C$ water bath).

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Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Wattenberg et al (2007) Chemoprevention of pulmonary carcinogenesis by aerosolized budesonide in female A/J mice. Cancer Res. 57 5489.

Pereira *et al* (2006) Modulation by budesonide of DNA methylation and mRNA expression in mouse lung tumors. Int.J.Cancer **120** 1150. **Spencer** *et al* (1995) Budesonide. A review of its pharmacological properties and therapeutic efficacy in inflammatory bowel disease. Drugs **50** 854. PMID: 8586030.

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