
Product Data Sheet

Product Name: Dexamethasone (DHAP)

Cat. No.: GC14667

Chemical Properties

Cas. No. 50-02-2

Chemical Name (8R,9R,10S,11S,13S,14S,16R,17R)-9-fluoro-11,17-dihydroxy-17-(2-hydroxyacetyl)-10,13,16-trimethyl-6,7,8,9,10,11,12,13,14,15,16,17-dodecahydro-3H-cyclopenta[a]phenanthren-3-one

SMILES O=C1C=C[C@@]2(C)C(CC[C@@]3([H])[C@]2(F)[C@@H](O)C[C@@]4(C)[C@@]3([H])C[C@@H](C)[C@@]4(C(CO)=O)O)=C1

Formula C₂₂H₂₉FO₅

M.Wt

392.46

Solubility ≥ 19.623mg/mL in DMSO

Storage

Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Protocol****Cell experiment [1]:**

Cell lines

Human osteosarcoma cell lineMG-63

Preparation method

The solubility of this compound in DMSO is >19.6mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Reacting condition 100 nM; 0-36 h

Applications In human osteoblast-like cell line MG-63, Dexamethasone (Dex) exhibited dose-dependently upregulating RhoB protein expression. Dex treatment for above 2 days could significantly inhibit the growth of MG-63 cells in a dose dependent way.

Animal experiment [2]:

Animal models LPS-induced neuroinflammation mice

Dosage form 0.25 mg/kg; intravenous (IV) or intranasal (IN).

Application In LPS-induced neuroinflammation mice, IN administration of DX significantly reduced the level of IL-6 in the brain extracts and reduced the percentage of GFAP+ brain cells one day after treatment. Compared with IV route, higher levels of DX are observed in the cerebrovasculature of mice after IN administration.

Other notes Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

References:

[1]. Diao F1, Chen K2,3, Wang Y1, et al. Involvement of small G protein RhoB in the regulation of proliferation, adhesion and migration by dexamethasone in osteoblastic cells. PLoS One. 2017 Mar 21;12(3):e0174273.

[2]. Meneses G1, Gevorkian G1, Florentino A1, et al. INTRANASAL DELIVERY OF DEXAMETHASONE EFFICIENTLY CONTROLS LPS-INDUCED MURINE NEUROINFLAMMATION. Clin Exp Immunol. 2017 Jul 28.

Background

Glucocorticoid; anti-inflammatory. Reduces levels of activated NF- κ B in immature dendritic cells (DCs) and inhibits differentiation into mature DCs. Induces differentiation of human mesenchymal stem cells (MSCs). Also induces autophagy in acute lymphoblas

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA