

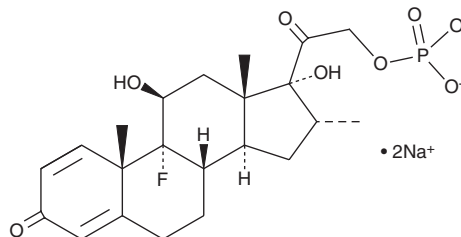
PRODUCT INFORMATION



Dexamethasone Phosphate (sodium salt)

Item No. 20340

CAS Registry No.: 2392-39-4
Formal Name: (11 β ,16 α)-9-fluoro-11,17-dihydroxy-16-methyl-21-(phosphonoxy)-pregna-1,4-diene-3,20-dione, disodium salt
Synonyms: Dexamethasone 21-phosphate, Dexamethasone Sodium Phosphate
MF: C₂₂H₂₈FO₈P • 2Na
FW: 516.4
Purity: \geq 95%
UV/Vis.: λ_{max} : 239 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Dexamethasone phosphate (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the dexamethasone phosphate (sodium salt) in water. The solubility of dexamethasone phosphate (sodium salt) in water is approximately 30 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of dexamethasone phosphate (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of dexamethasone phosphate (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Dexamethasone phosphate is a glucocorticoid.¹ It reduces LPS-induced production of RANTES, TGF- β 1, and nitric oxide (NO) in BV-2 microglia when used at concentrations ranging from 1 to 4 μ M. Dexamethasone phosphate reverses LPS-induced decreases in IL-10 levels in, and inhibits LPS-induced migration of, BV-2 microglia when used at a concentration of 4 μ M. *In vivo*, dexamethasone phosphate decreases motor activity and reduces adrenal weight and plasma corticosterone levels in rats when administered in the drinking water at a concentration of 5 μ g/ml.² Dexamethasone phosphate (1.6 mg/kg per day) reduces joint swelling in a rat model of collagen-induced arthritis when administered for a minimum of seven days.³ It also reduces pruritis and the clinical lesion score in cats with hypersensitivity dermatitis.⁴ Formulations containing dexamethasone phosphate have been used in the treatment of various inflammatory diseases, arthritis, and endocrine disorders.

References

1. Hui, B., Yao, X., Zhang, L., *et al.* *Naunyn Schmiedebergs Arch. Pharmacol.* **393**(9), 1761-1768 (2020).
2. Katz, R.J. and Carroll, B.J. *Physiol. Behav.* **20**(1), 25-30 (1978).
3. Rauchhaus, U., Schwaiger, F.W., and Panzner, S. *Arthritis Res. Ther.* **11**(6), R190 (2009).
4. McClintock, D., Austel, M., Gogal, R.M., Jr., *et al.* *Vet. Dermatol.* **32**(5), 497-e137 (2021).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM