# **PRODUCT** INFORMATION



## Prednisolone Phosphate (sodium salt)

Item No. 15933

CAS Registry No.:	125-02-0	
Formal Name:	11β,17-dihydroxy-21-(phosphonooxy)-	
Synonyms:	pregna-1,4-diene-3,20-dione, disodium salt Disodium Prednisolone 21-Phosphate,	
	Prednisolone Sodium Phosphate	HO O-
MF:	$C_{21}H_{27}O_8P \bullet 2Na$	
FW:	484.4	∧ ↓ ↓ ↓ / •2Na+
Purity:	≥98%	
UV/Vis.:	λ <sub>max</sub> : 242 nm	
Supplied as:	A crystalline solid	0
Storage:	-20°C	
Stability:	≥4 years	

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

#### Laboratory Procedures

Prednisolone phosphate (sodium salt) is supplied as a crystalline solid. Aqueous solutions of prednisolone phosphate (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of prednisolone 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

Prednisolone phosphate is a prodrug form of the synthetic glucocorticoid prednisolone (Item No. 20866) and a derivative of prednisone (Item No. 20677).<sup>1</sup> It is hydrolyzed to prednisolone in vivo. Prednisolone phosphate (10 mg/kg), administered in long-circulating liposomes, decreases inflammation and the levels of IL-1 $\beta$  in the synovium, as well as reduces damage to the cartilage matrix in a mouse model of antigen-induced arthritis.<sup>2</sup> It also reduces tumor growth in B16/F10 melanoma and C26 colon carcinoma mouse models when administered in long-circulating liposomes at a dose of 20 mg/kg.<sup>3</sup> Formulations containing prednisolone phosphate have been used as anti-inflammatory or immunosuppressive agents.

#### References

- 1. Frey, B.M., Seeberger, M., and Frey, F.J. Pharmacokinetics of 3 prednisolone prodrugs. Evidence of therapeutic inequivalence in renal transplant patients with rejection. Transplantation 39(3), 270-274 (1985).
- 2. Hofkens, W., Storm, G., van den Berg, W.B., et al. Liposomal targeting of glucocorticoids to the inflamed synovium inhibits cartilage matrix destruction during murine antigen-induced arthritis. Int. J. Pharm. 416(2), 486-492 (2011).
- 3. Schiffelers, R.M., Metselaar, J.M., Fens, M.H.A.M., et al. Liposome-encapsulated prednisolone phosphate inhibits growth of established tumors in mice. Neoplasia 7(2), 118-127 (2005).

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

#### SAFFTY 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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