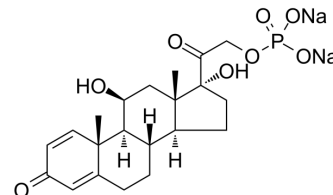


Prednisolone disodium phosphate

Cat. No.:	HY-B0645
CAS No.:	125-02-0
Molecular Formula:	C ₂₁ H ₂₇ Na ₂ O ₈ P
Molecular Weight:	484.39
Target:	Glucocorticoid Receptor
Pathway:	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 50 mg/mL (103.22 mM; Need ultrasonic)					
	Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	Mass	1 mg	5 mg	10 mg
		1 mM		2.0645 mL	10.3223 mL	20.6445 mL
		5 mM		0.4129 mL	2.0645 mL	4.1289 mL
		10 mM		0.2064 mL	1.0322 mL	2.0645 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (206.45 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	<p>Prednisolone disodium phosphate is a synthetic glucocorticoid with anti-inflammatory and immunomodulating properties. Target: Glucocorticoid Receptor. Prednisolone irreversibly binds with glucocorticoid receptors (GR) alpha and beta for which they have a high affinity. Prednisolone can activate and influence biochemical behaviour of most cells. The steroid/receptor complexes dimerise and interact with cellular DNA in the nucleus, binding to steroid-response elements and modifying gene transcription. They induce synthesis of some proteins, and inhibit synthesis of others. Prednisolone exerted a delayed biphasic effect on the resistant CCRF-CEM leukemic cell line, necrotic at low doses and apoptotic at higher doses. At low doses, prednisolone exerted a pre-dominant mitogenic effect despite its induction on total cell death, while at higher doses, prednisolone's mitogenic and cell death effects were counterbalanced [1, 2].</p>
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CUSTOMER VALIDATION

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- J Biomater Appl. 2023 Mar 4;8853282231154342.

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REFERENCES

[1]. Lambrou, G.I., et al., Prednisolone exerts late mitogenic and biphasic effects on resistant acute lymphoblastic leukemia cells: Relation to early gene expression. Leuk Res, 2009. 33(12): p. 1684-95.

[2]. <http://en.wikipedia.org/wiki/Prednisolone>

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

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