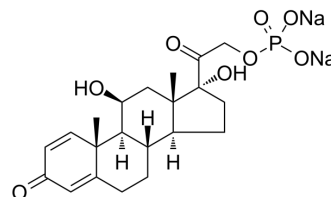


Prednisolone disodium phosphate

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																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>2.0645 mL</td> <td>10.3223 mL</td> <td>20.6445 mL</td> </tr> <tr> <td>5 mM</td> <td>0.4129 mL</td> <td>2.0645 mL</td> <td>4.1289 mL</td> </tr> <tr> <td>10 mM</td> <td>0.2064 mL</td> <td>1.0322 mL</td> <td>2.0645 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	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
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	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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