Prednisone

Cat. No.: HY-B0214

CAS No.: 53-03-2

Molecular Formula: $C_{21}H_{26}O_5$

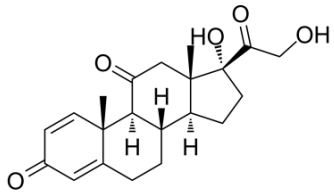
Molecular Weight: 358.43

Target: Glucocorticoid Receptor; Apoptosis

Pathway: GPCR/G Protein; Apoptosis

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (278.99 mM; Need ultrasonic)

H_2O : 1 mg/mL (2.79 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7899 mL	13.9497 mL	27.8995 mL
	5 mM	0.5580 mL	2.7899 mL	5.5799 mL
	10 mM	0.2790 mL	1.3950 mL	2.7899 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (5.80 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.80 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.80 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Prednisone (Adasone) is a synthetic corticosteroid agent that is particularly effective as an immunosuppressant compound.Target: OthersPrednisone is a synthetic corticosteroid drug that is particularly effective as an immunosuppressant drug. It is used to treat certain inflammatory diseases (such as moderate allergic reactions) and (at higher doses) some types of cancer, but has significant adverse effects. Because it suppresses the immune system, it leaves patients more susceptible to infections.Prednisone can also be used in the treatment of decompensated heart failure to potentiate renal responsiveness to diuretics, especially in heart failure patients with refractory diuretic resistance with large

dose of loop diuretics. The mechanism is prednisone, as a glucocorticoid, can improve renal responsiveness to atrial natriuretic peptide by increasing the density of natriuretic peptide receptor type A in the renal inner medullary collecting duct, inducing a potent diuresis.

CUSTOMER VALIDATION

- Exp Cell Res. 2020 Aug 1;393(1):112054.
- Drug Test Anal. 2020 Aug 27.

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REFERENCES

[1]. RIEMER AD. Application of the newer corticosteroids to augment diuresis in congestive heart failure. Am J Cardiol. 1958 Apr;1(4):488-96.

[2]. Zhang H, et al. Prednisone adding to usual care treatment for refractory decompensated congestive heart failure. Int Heart J. 2008 Sep;49(5):587-95.

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