

21-Deoxycortisol

Chemical Properties

CAS No. : 641-77-0

Formula: C₂₁H₃₀O₄

Molecular Weight: 346.47

Storage: Keep away from moisture, Keep away from direct sunlight,
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	21-Deoxycortisol is a corticosteroid metabolite derived from the adrenal glands, produced by the 11 β -hydroxylation of 17 α -hydroxyprogesterone. Because it lacks a hydroxyl group at the 21st position, it cannot be further converted into cortisol through normal metabolic pathways. 21-Deoxycortisol is a key biomarker and clinical diagnostic marker for congenital adrenal hyperplasia (CAH); measuring its levels aids in disease screening, diagnosis, and treatment monitoring. As a C11-oxo C21 steroid, 21-deoxycortisol may participate in the "backdoor" pathway of steroid metabolism and is associated with the formation of 11-oxoandrogens and the hyperandrogenic state seen in CAH; therefore, it is also frequently used in research on steroid metabolism and endocrine regulation.
Targets(IC50)	Endogenous Metabolite

Solubility Information

Solubility	DMSO: 80 mg/mL (230.9 mM), Sonication is recommended. Methanol: Slightly soluble Chloroform: Slightly soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8863 mL	14.4313 mL	28.8625 mL
5 mM	0.5773 mL	2.8863 mL	5.7725 mL
10 mM	0.2886 mL	1.4431 mL	2.8863 mL
50 mM	0.0577 mL	0.2886 mL	0.5773 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Franks RC. Plasma 17-hydroxyprogesterone, 21-deoxycortisol and cortisol in congenital adrenal hyperplasia. *J Clin Endocrinol Metab.* 1974;39(6):1099-1102.

Cristoni, S., Cuccato, D., Sciannamblo, M., et al. Analysis of 21-deoxycortisol, a marker of congenital adrenal hyperplasia, in blood by atmospheric pressure chemical ionization and electrospray ionization using multiple reaction monitoring. *Rapid Commun. Mass Spectrom.* 18(1)77-82(2004)

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