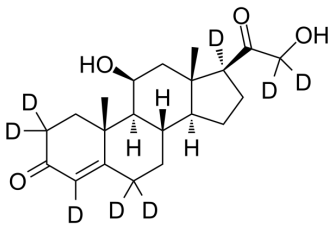
Corticosterone-d_8

Cat. No.:	HY-B1618S
CAS No.:	1271728-07-4
Molecular Formula:	$C_{21}H_{22}D_8O_4$
Molecular Weight:	354.51
Target:	Glucocorticoid Receptor; Endogenous Metabolite
Pathway:	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease
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 (282.08 mM; Need ultrasonic)
DMSO : 100 mg/mL (282.08 mM; Need ultrasonic and warming)
Ethanol : 14.29 mg/mL (40.31 mM; Need ultrasonic)
H_2O : 0.67 mg/mL (1.89 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8208 mL	14.1040 mL	28.2079 mL
	5 mM	0.5642 mL	2.8208 mL	5.6416 mL
	10 mM	0.2821 mL	1.4104 mL	2.8208 mL

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

BIOLOGICAL ACTIVITY

Description

Corticosterone-d_8 is the deuterium labeled Corticosterone. Corticosterone is an adrenocortical steroid that has modest but significant activities as a mineralocorticoid and a glucocorticoid.

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Gasser PJ, et al. Corticosterone-sensitive monoamine transport in the rat dorsomedial hypothalamus: potential role for organiccation transporter 3 in stress-induced modulation of monoaminergic neurotransmission. J Neurosci. 2006 Aug 23;26(34):8758-8766.

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