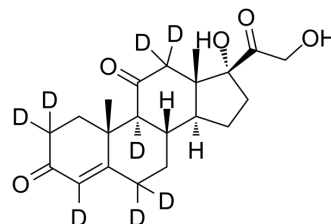


## Cortisone-d8

<b>Cat. No.:</b>	HY-17461S1		
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>20</sub> D <sub>8</sub> O <sub>5</sub>		
<b>Molecular Weight:</b>	368.49		
<b>Target:</b>	Glucocorticoid Receptor; Endogenous Metabolite		
<b>Pathway:</b>	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

<b>Description</b>	Cortisone-d <sub>8</sub> is the deuterium labeled Cortisone. Cortisone (17-Hydroxy-11-dehydrocorticosterone), an oxidized metabolite of Cortisol (a Glucocorticoid). Cortisone acts as an immunosuppressant and anti-inflammatory agent. Cortisone can partially intervene in binding of Glucocorticoid to Glucocorticoid-receptor at high concentrations[1][3][4].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Hirano T, et al. Cortisone counteracts apoptosis-inducing effect of cortisol in human peripheral-blood mononuclear cells. *Int Immunopharmacol.* 2001 Nov;1(12):2109-15.
- [3]. McCue RE, et al. The effect of cortisone on the accumulation, activation, and necrosis of macrophages in tuberculous lesions. *Inflammation.* 1978 Jun;3(2):159-76.
- [4]. Selem D, et al. In Vivo Antifungal Activity of Monolaurin against *Candida albicans* Biofilms. *Biol Pharm Bull.* 2018;41(8):1299-1302.
- [5]. Rusu VM, et al. In vivo effects of cortisone on the B cell line in chickens. *J Immunol.* 1975 Nov;115(5):1370-4.

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

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