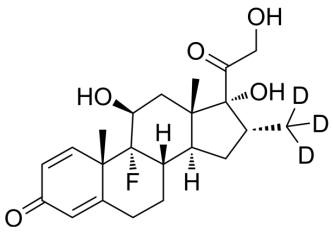
Dexamethasone-d_3-1

Cat. No.:	HY-14648S5
Molecular Formula:	$C_{22}H_{26}D_3FO_5$
Molecular Weight:	395.48
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



BIOLOGICAL ACTIVITY

Description	Dexamethasone-d_3-1 (Hexadecadrol-d_3-1; Prednisolone F-d_3-1) is a deuterium labeled Dexamethasone (HY-14648). Dexamethasone (Hexadecadrol) is a glucocorticoid receptor agonist. Dexamethasone also significantly decreases CD11b, CD18, and CD62L expression on neutrophils, and CD11b and CD18 expression on monocytes. Dexamethasone is highly effective in the control of COVID-19 infection. Dexamethasone inhibits production of exosomes containing inflammatory microRNA-155 in lipopolysaccharide-induced macrophage inflammatory responses.
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

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[3]. Roussel D, et al. Dexamethasone treatment specifically increases the basal proton conductance of rat liver mitochondria. FEBS Lett. 2003 Apr 24;541(1-3):75-9.

[4]. LaLone CA, et al. Effects of a glucocorticoid receptor agonist, Dexamethasone, on fathead minnow reproduction, growth, and development. Environ Toxicol Chem. 2012 Mar;31(3):611-22.

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[7]. Heidi Ledford. et al. Coronavirus Breakthrough: Dexamethasone Is First Drug Shown to Save Lives. Nature. 2020 Jun 16.

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

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