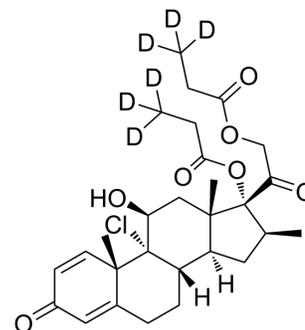


## Beclometasone dipropionate-d<sub>6</sub>

Cat. No.:	HY-13571AS
Molecular Formula:	C <sub>28</sub> H <sub>31</sub> D <sub>6</sub> ClO <sub>7</sub>
Molecular Weight:	527.08
Target:	Glucocorticoid Receptor; Isotope-Labeled Compounds
Pathway:	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

#### Description

Beclometasone dipropionate-d<sub>6</sub> is deuterium labeled Beclometasone dipropionate. Betamethasone dipropionate, the proagent of Betamethasone, is an orally active and potent glucocorticoid with anti-inflammatory and immunosuppressive activity. Betamethasone appears to be an effective inhibitor of LPS-induced inflammation and MMP release[1][2].

#### 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<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]. M Corbel, et al. Comparative effects of betamethasone, cyclosporin and nedocromil sodium in acute pulmonary inflammation and metalloproteinase activities in bronchoalveolar lavage fluid from mice exposed to lipopolysaccharide. *Pulm Pharmacol Ther.* 1999;12(3):165-71.
- [3]. Paola Lovato, et al. Calcipotriol and betamethasone dipropionate exert additive inhibitory effects on the cytokine expression of inflammatory dendritic cell-Th17 cell axis in psoriasis. *J Dermatol Sci.* 2016 Mar;81(3):153-64.

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

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