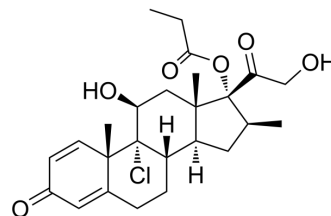


## Beclomethasone 17-propionate

Cat. No.:	HY-136239
CAS No.:	5534-18-9
Molecular Formula:	C <sub>25</sub> H <sub>33</sub> ClO <sub>6</sub>
Molecular Weight:	464.98
Target:	Glucocorticoid Receptor; Drug Metabolite
Pathway:	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (268.83 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.1506 mL	10.7532 mL	21.5063 mL
		5 mM	0.4301 mL	2.1506 mL	4.3013 mL
10 mM		0.2151 mL	1.0753 mL	2.1506 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.38 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	Beclomethasone 17-propionate (Beclomethasone-17-monopropionate), an active metabolite of Beclomethasone dipropionate (HY-13571), is a glucocorticoid receptor (GR) agonist. Beclomethasone 17-propionate exhibits greater affinity for GR than Beclomethasone dipropionate. Beclomethasone 17-propionate effectively suppresses cytokine production in chronic obstructive pulmonary disease (COPD) lung macrophages <sup>[1][2][3]</sup> .
In Vitro	Metabolism of Beclomethasone dipropionate to 17-BMP is an important activation step. Beclomethasone 17-propionate inhibits LPS-stimulated CXCL8, TNFα and IL-6. The EC <sub>50</sub> values of Beclomethasone 17-propionate for IL-6, TNFα and CXCL8 were 0.05 nM, 0.01 nM and 0.1 nM, respectively. Beclomethasone 17-propionate evokes upregulation of the GR dependent genes FKBP51 and GILZ <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Int J Pharm. 2021 Sep 21;609:121118.

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## REFERENCES

- [1]. Würthwein G, et al. Activation of beclomethasone dipropionate by hydrolysis to beclomethasone-17-monopropionate. Biopharm Drug Dispos. 1990 Jul;11(5):381-94.
- [2]. Roberts JK, et al. Metabolism of beclomethasone dipropionate by cytochrome P450 3A enzymes. J Pharmacol Exp Ther. 2013 May;345(2):308-16.
- [3]. Plumb J, et al. Evaluation of glucocorticoid receptor function in COPD lung macrophages using beclomethasone-17-monopropionate. PLoS One. 2013 May 21;8(5):e64257.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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