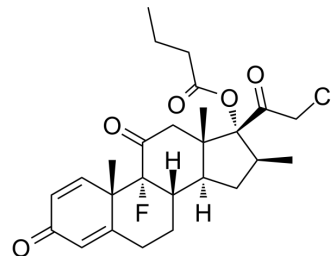


## Clobetasone butyrate

<b>Cat. No.:</b>	HY-B1616		
<b>CAS No.:</b>	25122-57-0		
<b>Molecular Formula:</b>	C <sub>26</sub> H <sub>32</sub> ClFO <sub>5</sub>		
<b>Molecular Weight:</b>	478.98		
<b>Target:</b>	Glucocorticoid Receptor		
<b>Pathway:</b>	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 250 mg/mL (521.94 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.0878 mL	10.4388 mL	20.8777 mL
	5 mM	0.4176 mL	2.0878 mL	4.1755 mL
	10 mM	0.2088 mL	1.0439 mL	2.0878 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: ≥ 6.25 mg/mL (13.05 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Clobetasone butyrate is a synthetic glucocorticoid and has topical anti-inflammatory activity especially in skin. Clobetasone butyrate can be used to relieve corticosteroid-responsive dermatoses, including atopic dermatitis and psoriasis<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: glucocorticoid<sup>[1]</sup>

#### In Vivo

Clobetasone butyrate (application on the skin; 0.05%; 7 weeks) induces epidermal thinning in skin, Clobetasone butyrate 7 weeks causes much less epidermal thinning in the pig than flurandrenolone (0.05%) or fluocinolone acetonide (0.025%), both of which causes severe atrophy<sup>[1]</sup>.

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

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Animal Model:	Large white domestic pig <sup>[1]</sup>
Dosage:	0.5% application on the skin
Administration:	7 weeks
Result:	Caused moderate to slight atrophy.

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## CUSTOMER VALIDATION

- J Am Chem Soc. 2021 Oct 14.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. Munro DD, et al. Clobetasone butyrate, a new topical corticosteroid: clinical activity and effects on pituitary-adrenal axis function and model of epidermal atrophy.
- [2]. Michael Stewart, et al. Clobetasone butyrate for inflammatory skin conditions.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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