

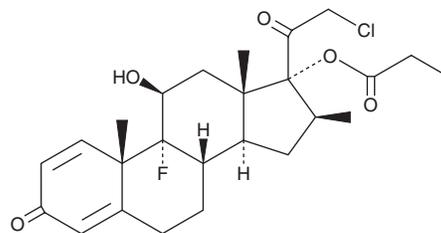
# PRODUCT INFORMATION



## Clobetasol Propionate

Item No. 21251

**CAS Registry No.:** 25122-46-7  
**Formal Name:** 21-chloro-9-fluoro-11 $\beta$ -hydroxy-16 $\beta$ -methyl-17-(1-oxopropoxy)-pregna-1,4-diene-3,20-dione  
**Synonyms:** CCI-4725, CGP 9555, Clobetasol 17-Propionate  
**MF:** C<sub>25</sub>H<sub>32</sub>ClFO<sub>5</sub>  
**FW:** 467.0  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 239 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Clobetasol propionate is supplied as a crystalline solid. A stock solution may be made by dissolving the clobetasol propionate in the solvent of choice. Clobetasol propionate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of clobetasol propionate in ethanol is approximately 1 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Clobetasol propionate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, clobetasol propionate should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Clobetasol propionate has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Clobetasol propionate is a corticosteroid.<sup>1</sup> It binds to glucocorticoid receptors in a cell-free assay ( $IC_{50} = 3.17$  nM) and inhibits proliferation of primary human skin fibroblasts when used at a concentration of 5  $\mu$ g/ml.<sup>1,2</sup> Topical administration of clobetasol propionate reduces croton oil-induced ear edema in mice.<sup>1</sup> Formulations containing clobetasol propionate have been used in the treatment of inflammatory skin conditions.

### References

1. Ueno, H., Maruyama, A., Miyake, M., *et al.* Synthesis and evaluation of antiinflammatory activities of a series of corticosteroid 17  $\alpha$ -esters containing a functional group. *J. Med. Chem.* **34(8)**, 2468-2473 (1991).
2. Ponec, M., de Haas, C., Bachra, B.N., *et al.* Effects of glucocorticosteroids on primary human skin fibroblasts. I. Inhibition of the proliferation of cultured primary human skin and mouse L929 fibroblasts. *Arch. Dermatol. Res.* **259(12)**, 117-123 (1977).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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