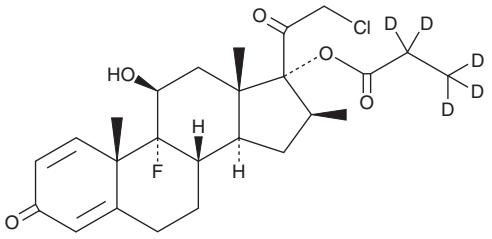
PRODUCT INFORMATION

Clobetasol Propionate-d_5

Item No. 33365



CAS Registry No.:	2280940-18-1
Formal Name:	21-chloro-9-fluoro-11-hydroxy-16-methyl-17-(1-oxopropoxy-2,2,3,3,3-d_5)-(11β,16β)-pregna-1,4-diene-3,20-dione
Synonyms:	CCI-4725-d_5, CGP 9555-d_5, Clobetasol 17-propionate-d_5
MF:	$C_{25}H_{27}ClD_5FO_5$
FW:	472.0
Chemical Purity:	≥98% (Clobetasol Propionate)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_5); ≤1% d_0
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

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

Laboratory Procedures

Clobetasol propionate-d_5 is intended for use as an internal standard for the quantification of clobetasol propionate (Item No. 21251) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Clobetasol propionate-d_5 is supplied as a solid. A stock solution may be made by dissolving the clobetasol propionate-d_5 in the solvent of choice, which should be purged with an inert gas. Clobetasol propionate-d_5 is soluble in methanol.

Description

Clobetasol propionate is a corticosteroid.[1] 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 µg/ml.[1,2] Topical administration of clobetasol propionate reduces croton oil-induced ear edema in mice.[1] 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 α-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).

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