Product Name: Fluticasone propionate
Catalog No.: 2007
Batch No.: 2

CAS Number: 80474-14-2
IUPAC Name: (6α,11β,16α,17α)-6,9-Difluoro-11-hydroxy-16-methyl-3-oxo-17-(1-oxopropoxy)androsta-1,4-diene-17-carbothioic acid fluoromethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** $C_{25}H_{31}F_{3}O_{5}S$
- **Batch Molecular Weight:** 500.57
- **Physical Appearance:** White solid
- **Solubility:** DMSO to 50 mM
- **Storage:** Store at RT

2. ANALYTICAL DATA

- **HPLC:** Shows 99.5% purity
- **$^1$H NMR:** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **Optical Rotation:** $[\alpha]_D = +30.8$ (Concentration = 0.5, Solvent = DCM)
- **Microanalysis:**
  - Carbon: Theoretical 59.99, Found 59.64
  - Hydrogen: Theoretical 6.25, Found 6.22
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IUPAC Name: (6α,11β,16α,17α)-6,9-Difluoro-11-hydroxy-16-methyl-3-oxo-17-(1-oxopropoxy)androsta-1,4-diene-17-carbothioic acid fluoromethyl ester

Description:
High affinity, selective glucocorticoid receptor agonist (Kᵢ = 0.5 nM). Potently stimulates glucocorticoid receptor-mediated transactivation of gene expression and enhances human eosinophil apoptosis (EC₅₀ = 3.7 nM) in vitro. Inhibits mast cell accumulation in nasal mucosa following topical administration. Lipophilic anti-inflammatory agent with low oral bioavailability. Also potentiates Kv1 channels (EC₅₀ = 37 nM).

Physical and Chemical Properties:
Batch Molecular Formula: C₂₀H₂₅F₃O₅S
Batch Molecular Weight: 500.57
Physical Appearance: White solid

Storage: Store at RT

Solubility & Usage Info:
DMSO to 50 mM

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:
Sold for research purposes under agreement from GlaxoSmithKline

References: