

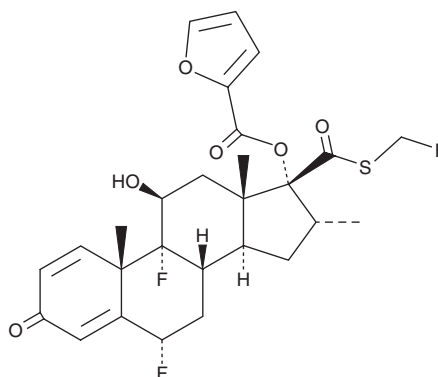
# PRODUCT INFORMATION



## Fluticasone Furoate

Item No. 29878

**CAS Registry No.:** 397864-44-7  
**Formal Name:** (6 $\alpha$ ,11 $\beta$ ,16 $\alpha$ ,17 $\alpha$ )-6,9-difluoro-17-[(2-furanylcarbonyl)oxy]-11-hydroxy-16-methyl-3-oxo-androsta-1,4-diene-17-carbothioic acid, S-(fluoromethyl) ester  
**Synonyms:** GSK685698, GW 685698X  
**MF:** C<sub>27</sub>H<sub>29</sub>F<sub>3</sub>O<sub>6</sub>S  
**FW:** 538.6  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 242 nm  
**Supplied as:** A 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

Fluticasone furoate is supplied as a solid. A stock solution may be made by dissolving the fluticasone furoate in the solvent of choice, which should be purged with an inert gas. Fluticasone furoate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of fluticasone furoate in these solvents is approximately 1, 15, and 20 mg/ml, respectively.

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

### Description

Fluticasone furoate is a synthetic glucocorticoid.<sup>1</sup> It is selective for the glucocorticoid receptor over the mineralocorticoid, progesterone, and androgen receptors in reporter assays ( $EC_{50}$ s = 0.03, 23.4, 0.9, and >10,000 nM, respectively), as well as estrogen receptor  $\alpha$  (ER $\alpha$ ) and ER $\beta$  in scintillation proximity assays ( $EC_{50}$ s = >10,000 nM for both). Fluticasone furoate reduces LPS-induced increases in TNF- $\alpha$  production in human peripheral blood mononuclear cells (PBMCs) with an  $EC_{50}$  value of 0.12 nM. It decreases *S. aureus* enterotoxin-induced increases in IFN- $\gamma$ , IL-2, IL-5, IL-17, and TNF- $\alpha$  levels in patient-derived nasal polyp tissue when used at a concentration of 100 nM.<sup>2</sup> Intrathecal administration of fluticasone furoate (30  $\mu$ g/animal) reduces ovalbumin-induced increases in bronchoalveolar lavage fluid (BALF) eosinophil infiltration in a rat model of allergic inflammation.<sup>1</sup> Formulations containing fluticasone furoate have been used in the treatment of seasonal allergies.

### References

1. Salter, M., Biggadike, K., Matthews, J.L., et al. Pharmacological properties of the enhanced-affinity glucocorticoid fluticasone furoate in vitro and in an in vivo model of respiratory inflammatory disease. *Am. J. Physiol. Lung Cell Mol. Physiol.* **293**(3), L660-L667 (2007).
2. Zhang, N., Van Crombruggen, K., Holtappels, G., et al. Suppression of cytokine release by fluticasone furoate vs. mometasone furoate in human nasal tissue ex-vivo. *PLoS One* **9**(4):e93754 (2014).

#### 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.

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