

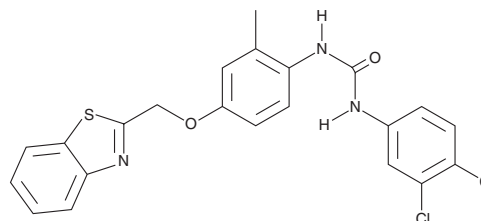
PRODUCT INFORMATION



Diflapolin

Item No. 28103

CAS Registry No.: 724453-98-9
Formal Name: N-[4-(2-benzothiazolylmethoxy)-2-methylphenyl]-N'-(3,4-dichlorophenyl)-urea
MF: C₂₂H₁₇Cl₂N₃O₂S
FW: 458.4
Purity: ≥98%
UV/Vis.: λ_{max}: 259 nm
Supplied as: A crystalline 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

Diflapolin is supplied as a crystalline solid. A stock solution may be made by dissolving the diflapolin in the solvent of choice. Diflapolin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of diflapolin in these solvents is approximately 1.6 and 2.5 mg/ml, respectively.

Description

Diflapolin is a dual inhibitor of 5-lipoxygenase-activating protein (FLAP) and soluble epoxide hydrolase (sEH).¹ It inhibits formation of the 5-lipoxygenase (5-LO) products leukotriene B₄ (LTB₄; Item No. 20110) and 5-HpETE (Item No. 44230) in isolated human monocytes and neutrophils (IC₅₀s = 30 and 170 nM, respectively) and inhibits the epoxide hydrolase activity of sEH with an IC₅₀ value of 20 nM in a cell-free assay. It is selective for FLAP and sEH over other arachidonic acid metabolism enzymes, including 5-LO, LTC₄ synthase, mPGES-1, COX-1, or COX-2 in cell-free assays, as well as 12- and 15-LO in neutrophils. Diflapolin (1, 3, and 10 mg/kg) decreases inflammation in a mouse model of peritonitis induced by zymosan, reducing the production of LTB₄ and LTC₄ and inhibiting leukocyte recruitment.

Reference

1. Garscha, U., Romp, E., Pace, S., *et al.* Pharmacological profile and efficiency *in vivo* of diflapolin, the first dual inhibitor of 5-lipoxygenase-activating protein and soluble epoxide hydrolase. *Sci. Rep.* **7(1)**, 9398 (2017).

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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