

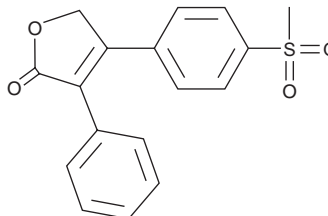
PRODUCT INFORMATION



Rofecoxib

Item No. 10010260

CAS Registry No.: 162011-90-7
Formal Name: 4-[4-(methylsulfonyl)phenyl]-3-phenyl-2(5H)-furanone
Synonym: MK-966
MF: C₁₇H₁₄O₄S
FW: 314.4
Purity: ≥98%
UV/Vis.: λ_{max}: 284 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

Rofecoxib is supplied as a crystalline solid. A stock solution may be made by dissolving the rofecoxib in the solvent of choice, which should be purged with an inert gas. Rofecoxib is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of rofecoxib in ethanol is approximately 0.1 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Description

Rofecoxib is a non-steroidal anti-inflammatory drug (NSAID) that selectively inhibits COX-2 over COX-1 with IC₅₀ values of 0.018 and >15 μM, respectively, for production of prostaglandin E₂ (PGE₂; Item No. 14010) in CHO cells expressing the recombinant human enzymes.¹ *In vivo*, rofecoxib inhibits carrageenan-induced paw edema and hyperalgesia (ID₅₀s = 1.5 and 1.0 mg/kg, respectively), LPS-induced pyresis (ID₅₀ = 0.24 mg/kg), and *M. butyricum*-induced arthritis (ID₅₀ = 0.74 mg/kg/day per day) in rats. Formulations containing rofecoxib were previously used in the treatment of pain and arthritis.

Reference

1. Chan, C.C., Boyce, S., Brideau, C., *et al.* Rofecoxib [Vioxx, MK-0966; 4-(4'-methylsulfonylphenyl)-3-phenyl-2-(5H)-furanone]: A potent and orally active cyclooxygenase-2 inhibitor. Pharmacological and biochemical profiles. *J. Pharmacol. Exp. Ther.* **290**(2), 551-560 (1999).

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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