



LKT Laboratories, Inc.

(±)-Warfarin

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Product Information

Product ID W0269

CAS No. 81-81-2

Chemical Name

Synonym coumadin, Athrombine K, NSC 59813, (R,S)-Warfarin, WARF 42, Zoocoumarin, Coumafene

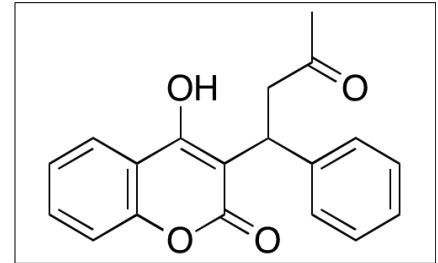
Formula C₁₉H₁₆O₄

Formula Wt. 308.33

Melting Point 162.0 - 164.0

Purity ≥98%

Solubility Dioxane; Acetone Ether



Bulk quantities available upon request

Product ID	Size
W0269	1 g
W0269	10 g
W0269	25 g

Store Temp Ambient

Ship Temp Ambient

Description Warfarin is an orally available antithrombotic commonly used for preventing blood clot formation and migration. The S enantiomer of warfarin is somewhat more potent than the R enantiomer. This coumarin inhibits the subunit 1 of the vitamin K epoxide reductase complex (VKORC1), depleting the reduced form of vitamin K (KH₂) and inhibiting the formation of coagulation factors II, VII, IX, and X. Warfarin has a relatively slow onset and requires 1 to 2 days to take effect. This compound is highly sensitive to a wide variety of genetic polymorphisms and is metabolized by cytochrome P450C₉; it also interacts with many other medications and foods, requiring diligent activity monitoring.

References Hall AM, Wilkins MR. Warfarin: a case history in pharmacogenetics. *Heart*. 2005 May;91(5):563-4. PMID: 15831631.

Tabrizi AR, Zehnbauer BA, Borecki IB, et al. The frequency and effects of cytochrome P450 (CYP) 2C9 polymorphisms in patients receiving warfarin. *J Am Coll Surg*. 2002 Mar;194(3):267-73. PMID: 11893129.

Freedman MD. Oral anticoagulants: pharmacodynamics, clinical indications and adverse effects. *J Clin Pharmacol*. 1992 Mar;32(3):196-209. PMID:1564123.

Wallin R, Martin LF. Vitamin K-dependent carboxylation and vitamin K metabolism in liver. Effects of warfarin. *J Clin Invest*. 1985 Nov;76(5):1879-84. PMID: 3932474.

Suttie JW. Mechanism of action of vitamin K: demonstration of a liver precursor of prothrombin. *Science*. 1973 Jan 12;179(4069):192-4. PMID: 4682251.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.