

PRODUCT INFORMATION



Menaquinone 9

Item No. 18242

CAS Registry No.: 523-39-7
Formal Name: 2-methyl-3-[(2E,6E,10E,14E,18E,22E,26E,30E)-3,7,11,15,19,23,27,31,35-nonamethyl-2,6,10,14,18,22,26,30,34-hexatriacontanonaen-1-yl]-1,4-naphthalenedione

Synonyms: MK-9, Vitamin K₂(45)

MF: C₅₆H₈₀O₂

FW: 785.2

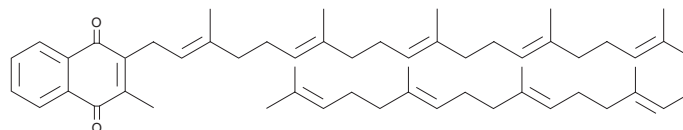
Purity: ≥95%

UV/Vis.: λ_{max}: 249, 270, 315 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

Menaquinone 9 (MK-9) is supplied as a crystalline solid. A stock solution may be made by dissolving the MK-9 in the solvent of choice, which should be purged with an inert gas. MK-9 is soluble in the organic solvent chloroform at a concentration of approximately 100 mg/ml.

Description

MK-9 is a vitamin K₂ analog that has been found in various bacteria, including *E. coli*.^{1,2} MK-9 is UV-sensitive and binds to soluble nitrate reductase, a component of the bacterial electron transport chain.¹ *In vivo*, MK-9 increases plasma prothrombin concentration in vitamin K-deficient rats.²

References

- Craciun, A.M., Groenen-van Dooren, M.M., Thijssen, H.H., *et al.* Induction of prothrombin synthesis by K-vitamins compared in vitamin K-deficient and in brodifacoum-treated rats. *Biochim. Biophys. Acta* **1380(1)**, 75-81 (1998).
- Brito, F., DeMoss, J.A., and Dubourdiou, M. Isolation and identification of menaquinone-9 from purified nitrate reductase of *Escherichia coli*. *J. Bacteriol.* **177(13)**, 3728-3735 (1995).

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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