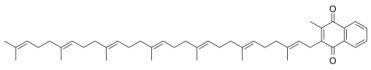
Data Sheet

Product Name:	Menaquinone-7
Cat. No.:	CS-0046153
CAS No.:	2124-57-4
Molecular Formula:	C46H64O2
Molecular Weight:	649.00
Target:	Others
Pathway:	Others
Solubility:	H2O : < 0.1 mg/mL (insoluble); DMSO : 5 mg/mL (7.70 mM; Need ultrasonic and warming)



BIOLOGICAL ACTIVITY:

Menaquinone-7 (Vitamin K2-7), belongs to a class of K2-vitamin homologs, is originally discovered as the anti-hemorrhagic factors[1]. Menaquinone-7 (Vitamin K2-7) is identified as the most bioactive cofactor for the carboxylation reaction of Gla-proteins [2]. Supplementation with Menaquinone-7 (Vitamin K2-7) is a pharmacological option for activating matrix Gla protein and intervening in the progression of calcific aortic valve stenosis (CAVS)[3].

References:

[1]. Thijssen, H H., et al., 1994. Vitamin K distribution in rat tissues: dietary phylloquinone is a source of tissue menaquinone-4. The British journal of nutrition. 72(3): 415-25.

[2]. Conly, J M., et al., 1994. The contribution of vitamin K2 (menaquinones) produced by the intestinal microflora to human nutritional requirements for vitamin K. The American journal of gastroenterology. 89(6): 915-23.

[3]. Peeters FECM, et al. Bicuspid Aortic Valve Stenosis and the Effect of Vitamin K2 on Calcification Using 18F-Sodium Fluoride Positron Emission Tomography/Magnetic Resonance: The BASIK2 Rationale and Trial Design. Nutrients. 2018 Mar 21;10(4). pii: E386.

CAIndexNames:

1,4-Naphthalenedione, 2-[(2E,6E,10E,14E,18E,22E)-3,7,11,15,19,23,27-heptamethyl-2,6,10,14,18,22,26-octacosaheptaen-1-yl]-3-methyl-

SMILES:

O=C1C(C/C=C(C)/CC/C=C(C)/CC/C=C(C)/CC/C=C(C)/CC/C=C(C)/CC/C=C(C)/CC/C=C(C)\C)=C(C)C(C2=C1C=CC=C2)=O

Caution: Product has not been fully validated for medical applications. For research use only.

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