Menaquinone 7
Item No. 10011051

CAS Registry No.: 2124-57-4
Formal Name: 2-(3,7,11,15,19,23,27-heptamethyloctacosa-2E,6E,10E,14E,18E,22E,26-heptaen-1-yl)-3-methylnaphthalene-1,4-dione
Synonyms: MK-7, Vitamin K\textsubscript{2}(35), Vitamin MK-7
MF: C\textsubscript{46}H\textsubscript{64}O\textsubscript{2}
FW: 649.0
Purity: \geq 98%
UV/Vis.: \lambda_{\text{max}}: 248, 270, 330 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 2\text{ years}

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Menaquinone 7 (MK-7) is a vitamin K\textsubscript{2} analog that has been found in a variety of fermented foods.\textsuperscript{1} It increases osteocalcin, osteoprotegerin, and RANKL mRNA expression in osteoblastic MC3T3E cells. MK-7 (1 \textmu M) increases alkaline phosphatase activity and calcium content in femoral-metaphyseal tissues isolated from normal and skeletal-unloaded rats.\textsuperscript{2} In vivo, MK-7 (100 \mu g/g diet) inhibits aortic and myocardial calcification and decreases aortic alkaline phosphatase tissue concentrations in a rat model of extraosseous calcification.\textsuperscript{3} It also increases trabecular number, bone mineral density, and bone mineral content in a rat model of ovariectomy-induced bone loss.\textsuperscript{4}

References