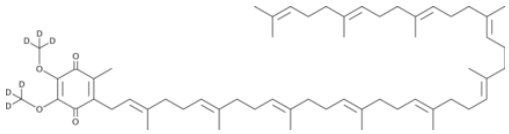
Product Data Sheet

Product Name: Coenzyme Q10-d6
Cat. No.: GC47116

Chemical Properties

Cas. No.	110971-02-3		
SMILES	O=C(C(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)/CC/C=C(C)/CC/C=C(C)/CC/C=C(C)/CC/C=C(C)/CC/C=C(C)/C)=C1C)C(OC([2H])([2H])[2H])=C(OC([2H])([2H])[2H])C1=O		
Formula	C59H84D6O4	M.Wt	869.4
Solubility	Acetonitrile: soluble,DMSO: soluble,Methanol: soluble,Water: soluble	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

Coenzyme Q_{10}-d_6 (CoQ_{10}-d_6) is intended for use as an internal standard for the quantification of CoQ_{10} by GC- or LC-MS. CoQ_{10} is a naturally occurring quinone found throughout the body in cell membranes, primarily in mitochondrial membranes, with highest concentrations in the heart, lungs, liver, kidneys, spleen, pancreas, and adrenal glands.[1] It is a component of the electron transport chain and participates in aerobic cellular respiration, generating energy in the form of ATP.[2] In its reduced form, CoQ_{10} acts as an antioxidant, preventing the formation of reactive oxygen species.[2] CoQ_{10} deficiencies have been associated with heart failure, hypertension, parkinsonism, mitochondrial encephalomyopathies, and other chronic diseases.[3,4]

Caution: Product has not been fully validated for medical applications. For research use only.
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1.Saini, R.Coenzyme Q10: The essential nutrientJ. Pharm. Bioallied Sci.3(3)466-467(2011) 2.Crane, F.L.Biochemical functions of coenzyme Q10J. Am. Coll. Nutr.20(6)591-598(2001) 3.Wyman, M., Leonard, M., and Morledge, T.Coenzyme Q10: A therapy for hypertension and statin-induced myalgia•Cleve. Clin. J. Med.77(7)435-442(2010) 4.Quinzii, C.M., and Hirano, M.Primary and secondary CoQ10 deficiencies in humansBioFactors37(5)361-365(2011)

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