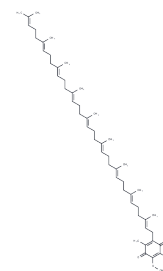


## Coenzyme Q9

### Chemical Properties

|                   |                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------|
| CAS No. :         | 303-97-9                                                                                   |
| Formula:          | C54H82O4                                                                                   |
| Molecular Weight: | 795.23                                                                                     |
| Appearance:       | no data available                                                                          |
| Storage:          | keep away from direct sunlight<br>Powder: -20°C for 3 years   In solvent: -80°C for 1 year |



### Biological Description

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description     | Coenzyme Q9 (Ubiquinone 9) (CoQ9) is a normal constituent of human plasma. CoQ9 in human plasma may originate as a product of incomplete CoQ10 biosynthesis or from the diet.                                                                                                                                                                                                                                                                                                                                                                                |
| Targets(IC50)   | Apoptosis,Endogenous Metabolite                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| In vitro        | Coenzyme Q9 were cardioprotective, as evidenced by their abilities to improve left ventricular performance and to reduce myocardial infarct size and cardiomyocyte apoptosis[1].                                                                                                                                                                                                                                                                                                                                                                             |
| In vivo         | Mutations in the gene that encodes Coenzyme Q9(CoQ9) are associated with encephalomyopathy and autosomal-recessive, neonatal-onset, primary CoQ10 deficiency.While in humans CoQ10 predominates, mice and C. elegans primarily rely on CoQ9 for electron transport through the mitochondrial respiratory chain and for antioxidant functions[2,3].                                                                                                                                                                                                           |
| Animal Research | Guinea pigs were randomly divided into three groups: groups I and II were fed CoQ 9 and CoQ10, respectively, for 30 days while group III served as control.?After 30 days, the guinea pigs were sacrificed and isolated hearts were perfused via working mode were subjected to 30 min ischemia followed by 2 h of reperfusion.?Cardioprotection was assessed by evaluating left ventricular function, ventricular arrhythmias, myocardial infarct size, and cardiomyocyte apoptosis.?Samples of hearts were examined for the presence of CoQ9 and CoQ10[1]. |

### Solubility Information

|            |                                                                                                 |
|------------|-------------------------------------------------------------------------------------------------|
| Solubility | DMSO: < 1mg/ml (insoluble) ,<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|-------------------------------------------------------------------------------------------------|

## A DRUG SCREENING EXPERT

### Preparing Stock Solutions

|       | 1mg       | 5mg       | 10mg      |
|-------|-----------|-----------|-----------|
| 1 mM  | 1.2575 mL | 6.2875 mL | 12.575 mL |
| 5 mM  | 0.2515 mL | 1.2575 mL | 2.515 mL  |
| 10 mM | 0.1257 mL | 0.6287 mL | 1.2575 mL |
| 50 mM | 0.0251 mL | 0.1257 mL | 0.2515 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

### Reference

Lekli I, et al. Coenzyme Q9 provides cardioprotection after converting into coenzyme Q10. J Agric Food Chem. 2008 Jul 9;56(13):5331-7.

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