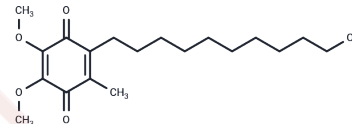


Idebenone

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 58186-27-9 |
| Formula: | C19H30O5 |
| Molecular Weight: | 338.44 |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA. |



Biological Description

| | |
|---------------|--|
| Description | Idebenone (CV-2619) is a synthetic analogue of ubiquinone (Coenzyme Q10), a vital cell antioxidant and essential component of the Electron Transport Chain (ETC). |
| Targets(IC50) | Apoptosis,Antioxidant,Mitochondrial Metabolism |
| In vitro | Idebenone increases ATP production required for mitochondrial function, reduces free radicals, inhibits lipid peroxidation, and consequently protects the lipid membrane and mitochondria from oxidative damage. |

Solubility Information

| | |
|---------------------|--|
| Solubility | DMSO: 40 mg/mL (118.19 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 63 mg/mL (186.15 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.91 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.9547 mL | 14.7737 mL | 29.5473 mL |
| 5 mM | 0.5909 mL | 2.9547 mL | 5.9095 mL |
| 10 mM | 0.2955 mL | 1.4774 mL | 2.9547 mL |
| 50 mM | 0.0591 mL | 0.2955 mL | 0.5909 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Rego AC, et al. *Free Radic Biol Med*, 1999, 26(11-12), 1405-1417.

Zhao X, Zeng Q, Yu S, et al. GLP-1R mediates idebenone-reduced blood glucose in mice. *Biomedicine & Pharmacotherapy*.2024, 178: 117202.

Yamada K, et al. *Eur J Neurosci*, 1999, 11(1), 83-90.

Miyamoto M, et al. *Exp Neurol*, 1990, 108(1), 38-45.

Sugiyama Y, et al. *FEBS Lett*, 1985, 184(1), 48-51.

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