

## Product Data Sheet

Product Name: Idebenone

Cat. No.: GC15972

### Chemical Properties

Cas. No. 58186-27-9

Chemical Name 2-(10-hydroxydecyl)-5,6-dimethoxy-3-methylcyclohexa-2,5-diene-1,4-dione

SMILES CC1=C(C(=O)C(=C(C1=O)OC)OC)CCCCCCCCCO

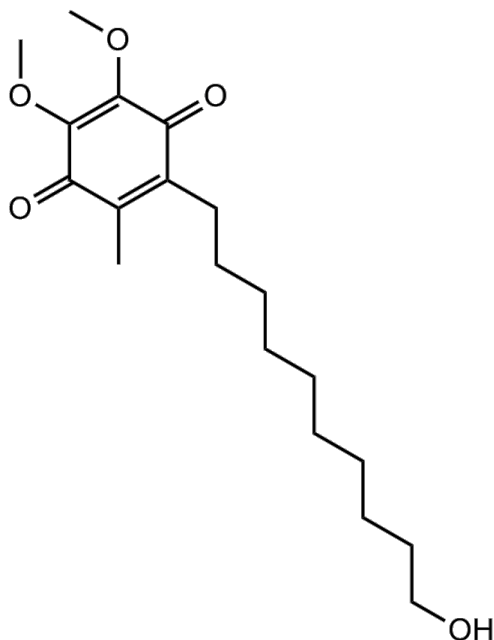
Formula  $C_{19}H_{30}O_5$  M.Wt 338.44

Solubility  $\geq 9.85\text{mg/mL}$  in DMSO Storage Store at  $-20^{\circ}\text{C}$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}\text{C}$  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

Idebenone is a synthetic variant of coenzyme Q10 (CoQ10), which initially developed for the

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

## Product Data Sheet

---

treatment of Alzheimer's disease and other cognitive defects. Target: Others Idebenone is a synthetic variant of coenzyme Q10 (CoQ10), which initially developed for the treatment of Alzheimer's disease and other cognitive defects. Idebenone was generally well tolerated with similar numbers of adverse events in each group. One child receiving high-dose idebenone developed neutropenia after 6 months, which resolved after discontinuation of treatment. 8OH2'dG concentrations were not increased, and did not significantly change with idebenone treatment [1]. The 2-year efficacy and safety of idebenone were studied in a prospective, randomized, double-blind multicentre study in 3 parallel groups of patients with dementia of the Alzheimer type (DAT) of mild to moderate degree. A total of 450 patients were randomized to either placebo for 12 months, followed by idebenone 90 mg tid for another 12 months (n = 153) or idebenone 90 mg tid for 24 months (n = 148) or 120 mg tid for 24 months (n = 149). idebenone showed statistically significant dose-dependent improvement in the primary efficacy variable ADAS-Total and in all the secondary efficacy variables [2].

### References:

- [1]. Di Prospero, N.A., et al., Neurological effects of high-dose idebenone in patients with Friedreich's ataxia: a randomised, placebo-controlled trial. *The Lancet Neurology*, 2007. 6(10): p. 878-886.
- [2]. Lei D, et al. Synergistic neuroprotective effect of rasagiline and idebenone against retinal ischemia-reperfusion injury via the Lin28-let-7-Dicer pathway. *Oncotarget*. 2018 Jan 30;9(15):12137-12153.
- [3]. Gutzmann, H. and D. Hadler, Sustained efficacy and safety of idebenone in the treatment of Alzheimer's disease: update on a 2-year double-blind multicentre study, in *Alzheimer's Disease-From Basic Research to Clinical Applications*. 1998, Springer. p. 301-310.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: [tech@glpbio.com](mailto:tech@glpbio.com)

Address: 10292 Central Ave. #205, Montclair, CA, USA