Print Date: Feb 25th 2022

Certificate of Analysis

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Product Name: **Demethylasterriquinone B1** **Catalog No.: 1819** **Batch No.: 3**

CAS Number: 78860-34-1

IUPAC Name: 2-[2-(1,1-Dimethyl-2-propenyl)-1*H*-indol-3-yl]-3,6-dihydroxy-5-[7-(3-methyl-2-butenyl)-1*H*-indol-3-yl] -2,5-cyclohexadiene-1,4-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{32}H_{30}N_2O_4$

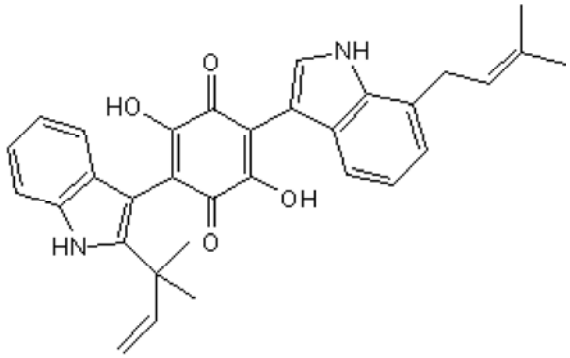
Batch Molecular Weight: 506.59

Physical Appearance: Black solid

Solubility: DMSO to 100 mM

Storage: Desiccate at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.2% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

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Product Information

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Description:

Demethylasterriquinone B1 is a selective insulin receptor (IR) activator (EC_{50} values are 3 - 6 µM for IRTK and 100 µM for IGF1R and EGFR). Increases IR β subunit tyrosine phosphorylation and activation of PI 3-kinase and Akt, but not ERK. Induces glucose uptake in adipocytes and skeletal muscle in vitro, without enhancing vascular proliferation. Binds GAPDH. Also activates Trk by interacting at a site distinct from the neurotrophin-binding site.

Physical and Chemical Properties:

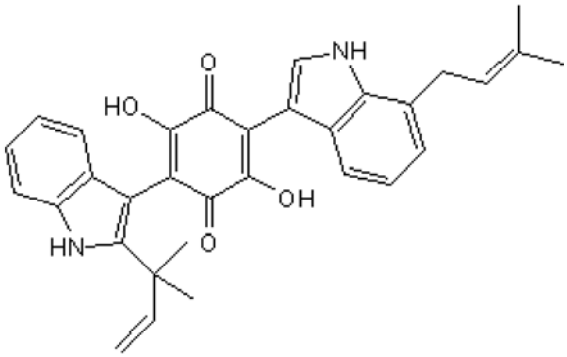
Batch Molecular Formula: $C_{32}H_{30}N_2O_4$

Batch Molecular Weight: 506.59

Physical Appearance: Black solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Kim *et al* (2007) Glyceraldehyde 3-phosphate dehydrogenase is a cellular target of the Ins mimic demethylasterriquinone B1. J.Med.Chem. ***50*** 3423. PMID: 17595071.

Webster *et al* (2003) Signaling effects of demethylasterriquinone B1, a selective Ins receptor modulator. Chembiochem ***4*** 379. PMID: 12740809.

Salituro *et al* (2001) Discovery of a small molecule Ins receptor activator. Recent Prog.Horm.Res. ***56*** 107. PMID: 11237209.

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