Buparvaquone
Item No. 21704

CAS Registry No.: 88426-33-9
Formal Name: 2-[[4-(1,1-dimethylethyl)cyclohexyl]methyl]-3-hydroxy-1,4-naphthalenedione
Synonym: BW 720C
MF: C_{21}H_{26}O_{3}
FW: 326.4
Purity: ≥98%
UV/Vis.: λ_{max}*: 252, 282, 332 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

Buparvaquone is supplied as a crystalline solid. A stock solution may be made by dissolving the buparvaquone in the solvent of choice. Buparvaquone is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of buparvaquone in DMSO and DMF is approximately 1 mg/ml. Buparvaquone is also sparingly soluble in ethanol.

Buparvaquone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, buparvaquone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Buparvaquone has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Buparvaquone is a hydroxynaphthoquinone that inhibits electron transport by blocking cytochrome bc_{1} in parasites that cause leishmaniasis.\(^1\) Formulations containing buparvaquone are used to treat theileriosis, an infection by the parasites \textit{T. annulata} and \textit{T. parva} (in vitro EC_{50}s of 1.5 \times 10^{-8} \text{ M} \text{ and } 6.1 \times 10^{-10} \text{ M}, respectively).\(^2,3\)

References