

Product Name: BQCA

Catalog No.: 6872

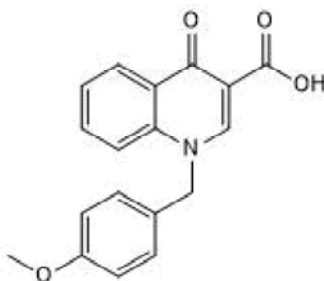
Batch No.: 1

CAS Number: 338747-41-4

IUPAC Name: 1,4-Dihydro-1-[(4-methoxyphenyl)methyl]-4-oxo-3-quinolinecarboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₅NO₄·½H₂O
Batch Molecular Weight: 318.33
Physical Appearance: White solid
Solubility: DMSO to 20 mM with gentle warming
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.1% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.92	5.07	4.4
Found	68.07	5.21	4.72

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Muscarinic M₁ receptor positive allosteric modulator (pK_B 5.76 - 5.82). Exhibits selectivity for M₁ over M₃ and M₅ receptors. Enhances ACh effects at M₁ receptors in an IP₁- accumulation assay, without affecting ACh binding. Increases markers of neuronal activation in brains of wild-type but not M₁^{-/-} mice in vivo. Prevents Scopolamine (Cat. No. 1414)-induced memory deficits in mice in a contextual fear conditioning model.

Physical and Chemical Properties:

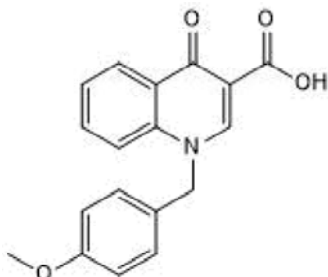
Batch Molecular Formula: C₁₈H₁₅NO₄·½H₂O

Batch Molecular Weight: 318.33

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 20 mM with gentle warming

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:

Khajehali et al (2018) Probing the binding site of novel selective positive allosteric modulators at the M₁ muscarinic acetylcholine receptor. *Biochem.Pharmacol* **154** 243. PMID: 29777683.

Ma et al (2009) Selective activation of the M₁ muscarinic acetylcholine receptor achieved by allosteric potentiation. *Proc.Natl.Acad.Sci.U.S.A.* **106** 15950. PMID: 19717450.

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