bio-techne
TOCRIS

Print Date: Apr 13th 2023

Certificate of Analysis

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Product Name: **ODQ** **Catalog No.: 0880** **Batch No.: 6**

CAS Number: 41443-28-1

IUPAC Name: 1*H*-[1,2,4]Oxadiazolo[4,3-*a*]quinoxalin-1-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_9H_5N_3O_2$

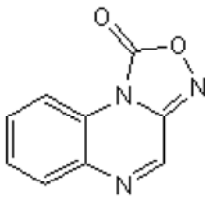
Batch Molecular Weight: 187.16

Physical Appearance: Pale yellow solid

Solubility: ethanol to 20 mM with gentle warming
DMSO to 100 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Ethyl acetate:Petroleum ether: CHC13 [1:4:5])

HPLC: Shows 99.2% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	57.76	2.69	22.44
Found	57.7	2.6	22.59

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CAS Number: 41443-28-1

IUPAC Name: 1*H*-[1,2,4]Oxadiazolo[4,3-*a*]quinoxalin-1-one

Description:

ODQ is a potent and selective inhibitor of NO-sensitive guanylyl cyclase.

Physical and Chemical Properties:

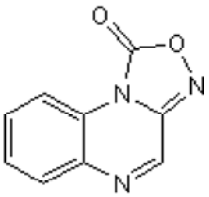
Batch Molecular Formula: $C_9H_5N_3O_2$

Batch Molecular Weight: 187.16

Physical Appearance: Pale yellow solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

ethanol to 20 mM with gentle warming
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:

Hwang *et al* (1998) Comparison of two soluble guanylyl cyclase inhibitors, methylene blue and ODQ, on sodium nitroprusside-induced relaxation in guinea-pig trachea. Br.J.Pharmacol. ***125*** 1158. PMID: 9863642.

Fedele *et al* (1996) *In vivo* microdialysis study of a specific inhibitor of soluble guanylyl cyclase on the glutamate receptor/nitric oxide/cyclic GMP pathway. Br.J.Pharmacol. ***119*** 590. PMID: 8894183.

Boulton *et al* (1995) Nitric oxide-dependent long-term potentiation is blocked by a specific inhibitor of soluble guanylyl cyclase. Neuroscience ***69*** 699. PMID: 8596640.