

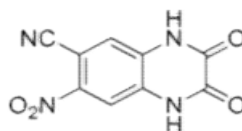
# Certificate of Analysis



## Product Identification

**Catalog number** HB0204  
**Compound name** CNQX  
**Chemical name** 6-Cyano-7-nitroquinoxaline-2,3-dione

**Batch number** E0268-4-3  
**Batch molecular formula** C<sub>9</sub>H<sub>4</sub>N<sub>4</sub>O<sub>4</sub> · 1.25H<sub>2</sub>O  
**Batch molecular weight** 254.67

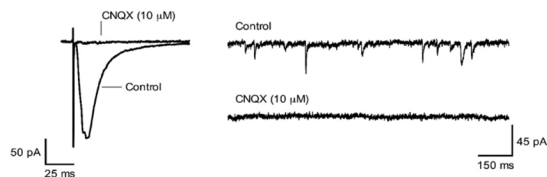


## Chemical Structure

Method	QC requirement	QC Result
HPLC	Reverse Phase HPLC shows >98% purity	Meets specification: 99.3%
NMR	<sup>1</sup> H NMR in DMSO at 400 MHz consistent with structure	Meets specification
Mass spectrum	Electrospray positive analysis consistent with structure	Meets specification
Microanalysis	Elemental analysis is within 0.4% for the batch molecular formula	Meets specification
TLC	TLC analysis in 5% AcOH/EtOAc shows one spot	Meets specification: R <sub>f</sub> =0.55
Physical appearance	Off-White to pale yellow solid	Meets specification: Pale Yellow Solid
Solubility	Soluble in DMSO to 100 mM	Meets specification

## Biological validation

**Fig 1: CNQX inhibition of evoked and spontaneous AMPAR mediated EPSCs in mouse cortical neurons**



The AMPA receptor antagonist CNQX is commonly used at concentrations of 10 μM to inhibit the actions of glutamate acting on AMPARs. CNQX from Hello Bio reduces both spontaneous and evoked EPSCs in cortical neurons at concentrations of 1 μM with full AMPA receptor blockade at 10 μM. For assay protocol, see #Protocol 1 in Application Notes below

**Produced by** Huw Davies

**Signature**

**Passed by** Steve Roome

**Signature**

**Date**

10-03-16

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

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