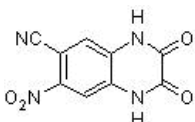


Product datasheet

CNQX, AMPA / kainate antagonist ab120017

[71 References](#) [3 Images](#)

Overview

Product name	CNQX, AMPA / kainate antagonist
Description	AMPA / kainate antagonist
Biological description	Potent, competitive AMPA / kainate receptor antagonist. Also antagonist at NMDA receptor glycine site.
CAS Number	115066-14-3
Chemical structure	

Properties

Chemical name	6-Cyano-7-nitroquinoxaline-2,3-dione
Molecular weight	232.16
Molecular formula	C ₉ H ₄ N ₄ O ₄
PubChem identifier	3721046
Storage instructions	Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in DMSO to 100 mM
Handling	<p>Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.</p> <p>Refer to SDS for further information.</p> <p>Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.</p>
SMILES	[O-][N+](=O)c1cc2NC(=O)C(=O)Nc2cc1C#N
Source	Synthetic

Applications

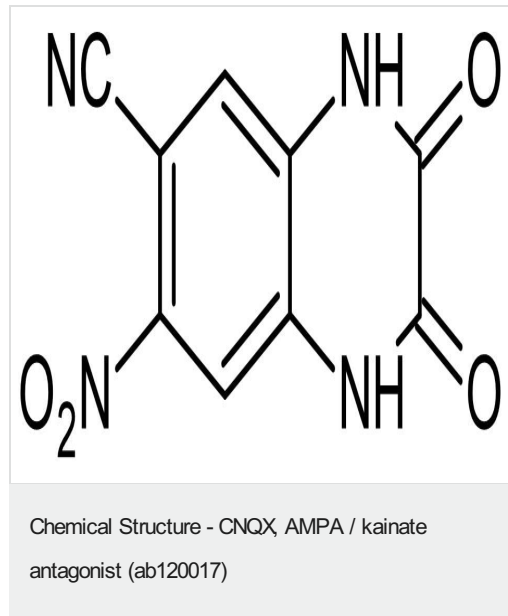
The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab120017 in the following tested applications.

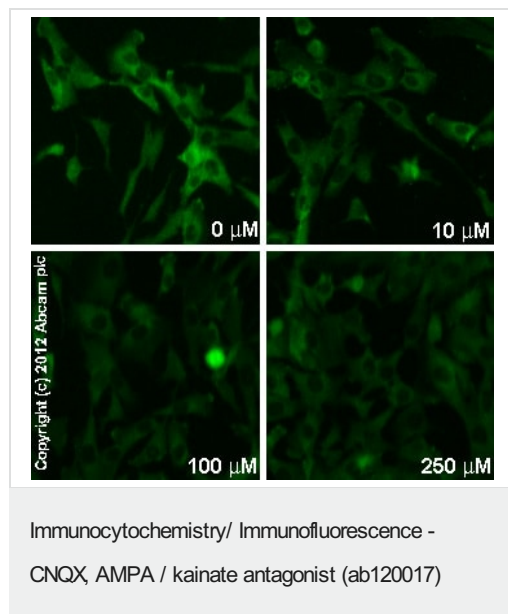
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images

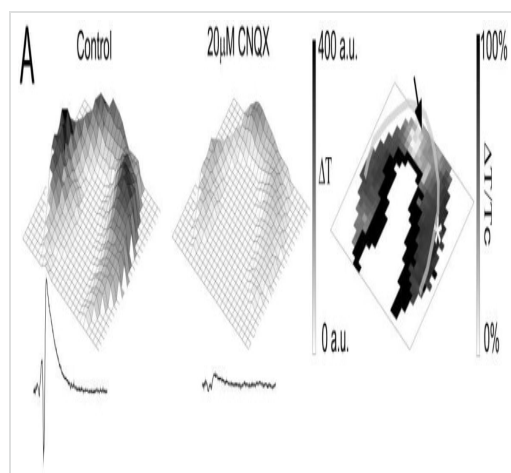


2D chemical structure image of ab120017, CNQX, AMPA / kainate antagonist



ab96379 staining MEK1 (phospho S298) in SK-N-SH cells treated with CNQX (ab120017), by ICC/IF. Decrease in MEK1 (phospho S298) expression correlates with increased concentration of CNQX, as described in literature.

The cells were incubated at 37°C for 24h in media containing different concentrations of ab120017 (CNQX) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with **ab96379** (1/100 dilution) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (**ab96899**) at 1/250 dilution was used as the secondary antibody.



Cellular activation - CNQX, AMPA / kainate
antagonist (ab120017)

Image from Ildiko P, et al. Plos One, 8(3), e57694. Fig
4a.; doi: 110.1371/journal.pone.0057694

Left and Middle: Representative IOS amplitude map and field response curve under control condition and under application of 20 μ M CNQX, respectively. The colorbar indicates the maximum change of the transmittance compared to the resting light intensity. A Right: Spatial visualization of the percentage of control changes of IOS signal caused by CNQX application.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors
- Abcam biochemicals are novel compounds and we have not tested their biological activity in house. Please use the literature to identify how to use these products effectively. If you require further assistance please contact the scientific support team