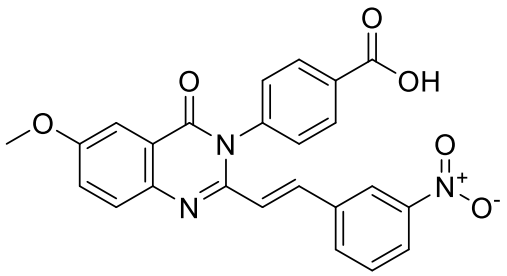
Product data sheet

MedKoo Cat#: 522398 Name: QNZ46 CAS#: 1237744-13-6 Chemical Formula: $C_{24}H_{17}N_3O_6$ Exact Mass: 443.11174 Molecular Weight: 443.42	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

QNZ46 is a NMDA receptor antagonist. QNZ46 inhibits NMDA receptor function in a noncompetitive and voltage-independent manner by an unconventional mechanism that requires binding of glutamate to the GluN2 subunit, but not glycine binding to the GluN1 subunit. QNZ46 could provide an opportunity for the development of pharmacological tools and therapeutic agents that target NMDA receptors at a new site and modulate function by a novel mechanism. NMDA receptors are ionotropic glutamate receptors that mediate excitatory synaptic transmission and have been implicated in several neurological diseases.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with coqnpies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	4.47	10.07

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	2.26 mL	11.28 mL	22.55 mL
5 mM	0.45 mL	2.26 mL	4.51 mL
10 mM	0.23 mL	1.13 mL	2.26 mL
50 mM	0.05 mL	0.23 mL	0.45 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Hansen KB, Traynelis SF. Structural and mechanistic determinants of a novel site for noncompetitive inhibition of GluN2D-containing NMDA receptors. J Neurosci. 2011 Mar 9;31(10):3650-61. doi: 10.1523/JNEUROSCI.5565-10.2011. PMID: 21389220; PMCID: PMC3063124.

In vivo study

N/A

7. Bioactivity

Biological target:

QNZ46 is a NR2C/NR2D-selective NMDA receptor non-competitive antagonist (IC50 values are 3, 6, 229, and >300, >300 μM for NR2D, NR2C, NR2A, NR2B, and GluR1, respectively).

In vitro activity

Product data sheet

QNZ46 inhibits NMDA receptor function in a noncompetitive and voltage-independent manner by an unconventional mechanism that requires binding of glutamate to the GluN2 subunit, but not glycine binding to the GluN1 subunit.

Reference: J Neurosci. 2011 Mar 9;31(10):3650-61. https://pubmed.ncbi.nlm.nih.gov/21389220/

In vivo activity

N/A

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.