**Product Data Sheet**

**Product Name:** Orphenadrine citrate

**CAS No.:** 4682-36-4

**Cat. No.:** HY-B0369A

**MWt:** 461.50

**Formula:** C24H31NO8

**Purity:** >98%

**Solubility:** DMSO 92 mg/mL; Water <1 mg/mL

**Mechanisms:** Pathways: Membrane Transporter/Ion Channel; Target: NMDA Receptor

Pathways: Neuronal Signaling; Target: NMDA Receptor

**Biological Activity:**

Orphenadrine citrate is a NMDA receptor antagonist with Ki of 6.0 +/- 0.7 μM, HERG potassium channel blocker.

**Target:** NMDA Receptor

Orphenadrine has been used as an antiparkinsonian, antispastic and analgesic drug. Orphenadrine inhibits [3H]MK-801 binding to the phencyclidine (PCP) binding site of the N-methyl-D-aspartate (NMDA)-receptor in homogenates of postmortem human frontal cortex with a Ki-value of 6.0 +/- 0.7 microM. The NMDA receptor antagonistic effects of orphenadrine were assessed using concentration- and patch-clamp techniques on cultured superior colliculus neurones. Orphenadrine blocked open NMDA receptor channels with fast kinetics and in a strongly voltage-dependent manner. The IC50-value against steady state currents at -70 mV was 16.2 +/- 1.6 microM (n = 6). Orphenadrine exhibited relatively fast, concentration-dependent open channel blocking kinetic...

**References:**


**Caution:** Not fully tested. For research purposes only

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