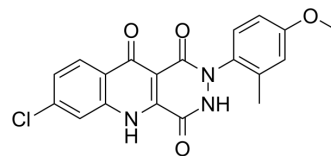


## ZD-9379

|                           |   |
|---------------------------|---|
| <b>Cat. No.:</b>          | HY-106968   |
| <b>CAS No.:</b>           | 170142-20-8   |
| <b>Molecular Formula:</b> | C <sub>19</sub> H <sub>14</sub> ClN <sub>3</sub> O <sub>4</sub>                           |
| <b>Molecular Weight:</b>  | 383.79  |
| <b>Target:</b>            | iGluR   |
| <b>Pathway:</b>           | Membrane Transporter/Ion Channel; Neuronal Signaling                                      |
| <b>Storage:</b>           | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

|                        |  |                      |  |                |         |                        |   |                |  |
|------------------------|--|----------------------|--|----------------|---------|------------------------|---|----------------|--|
| <b>Description</b>     | ZD-9379 is a potent, orally active, and brain penetrant full antagonist at the glycine site of the NMDA receptor. ZD-9379 has neuroprotective effect <sup>[1][2]</sup> .   |                      |  |                |         |                        |   |                |  |
| <b>In Vivo</b>         | <p>ZD-9379 (5 mg/kg) reduces number of spreading depressions and infarct size in rats with permanent middle cerebral artery occlusion<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td><b>Animal Model:</b></td> <td>Male Sprague-Dawley rats weighing 290 to 340 g undergoing permanent middle cerebral artery occlusion (MCAO)<sup>[1]</sup></td> </tr> <tr> <td><b>Dosage:</b></td> <td>5 mg/kg</td> </tr> <tr> <td><b>Administration:</b></td> <td>Group1: a 5-mg/kg bolus of ZD-9379 over 5 minutes followed by 5 mg/kg per hour drug infusion for 4 hours beginning 30 minutes before MCAO. Group 2: (post-MCAO treatment group), a 5-mg/kg bolus of ZD-9379 30 minutes after MCAO followed by 5 mg/kg per hour drug infusion for 4 hours.</td> </tr> <tr> <td><b>Result:</b></td> <td>Initiated before or after MCAO significantly reduced the number of Spreading depressions (SDs) and infarct volume in a permanent focal ischemia model.</td> </tr> </table> | <b>Animal Model:</b> | Male Sprague-Dawley rats weighing 290 to 340 g undergoing permanent middle cerebral artery occlusion (MCAO) <sup>[1]</sup> | <b>Dosage:</b> | 5 mg/kg | <b>Administration:</b> | Group1: a 5-mg/kg bolus of ZD-9379 over 5 minutes followed by 5 mg/kg per hour drug infusion for 4 hours beginning 30 minutes before MCAO. Group 2: (post-MCAO treatment group), a 5-mg/kg bolus of ZD-9379 30 minutes after MCAO followed by 5 mg/kg per hour drug infusion for 4 hours. | <b>Result:</b> | Initiated before or after MCAO significantly reduced the number of Spreading depressions (SDs) and infarct volume in a permanent focal ischemia model. |
| <b>Animal Model:</b>   | Male Sprague-Dawley rats weighing 290 to 340 g undergoing permanent middle cerebral artery occlusion (MCAO) <sup>[1]</sup>   |                      |  |                |         |                        |   |                |  |
| <b>Dosage:</b>         | 5 mg/kg  |                      |  |                |         |                        |   |                |  |
| <b>Administration:</b> | Group1: a 5-mg/kg bolus of ZD-9379 over 5 minutes followed by 5 mg/kg per hour drug infusion for 4 hours beginning 30 minutes before MCAO. Group 2: (post-MCAO treatment group), a 5-mg/kg bolus of ZD-9379 30 minutes after MCAO followed by 5 mg/kg per hour drug infusion for 4 hours.  |                      |  |                |         |                        |   |                |  |
| <b>Result:</b>         | Initiated before or after MCAO significantly reduced the number of Spreading depressions (SDs) and infarct volume in a permanent focal ischemia model.   |                      |  |                |         |                        |   |                |  |

## REFERENCES

[1]. Tatlisumak T, et al. A glycine site antagonist, ZD9379, reduces number of spreading depressions and infarct size in rats with permanent middle cerebral artery occlusion. *Stroke*. 1998;29(1):190-195.

[2]. ZD 9379. *Drugs R D*. 1999;1(1):44-45.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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