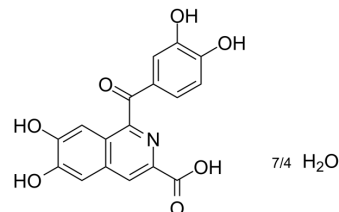


## NBI-31772 hydrate

Cat. No.:	HY-110135A
Molecular Formula:	C <sub>17</sub> H <sub>11</sub> NO <sub>7</sub> ·7/4H <sub>2</sub> O
Molecular Weight:	372.82
Target:	IGF-1R
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### BIOLOGICAL ACTIVITY

<b>Description</b>	NBI-31772 hydrate is a potent inhibitor of interaction between insulin-like growth factor (IGF) and IGF-binding proteins (IGFBPs). NBI-31772 hydrate is also a nonpeptide ligand that releases bioactive IGF-I from the IGF-I/IGFBP-3 complex (K <sub>d</sub> =1-24 nM for all six human subtypes). Anxiolytic and antidepressant-like effects <sup>[1][2][3]</sup> .
<b>In Vivo</b>	NBI-31772 (5-100 µg; icv; immediately or at 1, 2, or, 3 hours after MCAO) at the time of ischemia onset also dose-dependently reduced infarct size, and the highest dose (100 µg) significantly reduced both total and cortical infarct volume <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>Animal Model:</b>	Sprague-Dawley rats (subtemporal middle cerebral artery occlusion model, MCAO) <sup>[3]</sup>
<b>Dosage:</b>	5-100 µg
<b>Administration:</b>	Icv; immediately or at 1, 2, or, 3 hours after MCAO
<b>Result:</b>	Resulted in a significant reduction of the total and cortical lesion volume.

### REFERENCES

- [1]. Liu XJ, et al. Identification of a nonpeptide ligand that releases bioactive insulin-like growth factor-I from its binding protein complex. *J Biol Chem.* 2001 Aug 31;276(35):32419-22.
- [2]. De Ceuninck F, et al. Pharmacological disruption of insulin-like growth factor 1 binding to IGF-binding proteins restores anabolic responses in human osteoarthritic chondrocytes. *Arthritis Res Ther.* 2004;6(5):R393-403.
- [3]. Malberg JE, et al, Rosenzweig-Lipson S. Increasing the levels of insulin-like growth factor-I by an IGF binding protein inhibitor produces anxiolytic and antidepressant-like effects. *Neuropsychopharmacology.* 2007 Nov;32(11):2360-8.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA