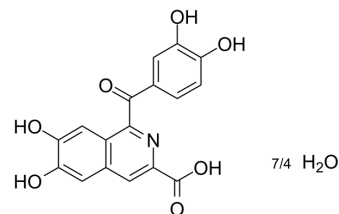


NBI-31772 hydrate

Cat. No.:	HY-110135A		
Molecular Formula:	C ₁₇ H ₁₁ NO ₇ ·7/4H ₂ O		
Molecular Weight:	372.82		
Target:	IGF-1R		
Pathway:	Protein Tyrosine Kinase/RTK		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	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 ($K_D=1-24$ nM for all six human subtypes). Anxiolytic and antidepressant-like effects ^{[1][2][3]} .		
In Vivo	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 ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
	Animal Model:	Sprague-Dawley rats (subtemporal middle cerebral artery occlusion model, MCAO) ^[3]	
	Dosage:	5-100 µg	
	Administration:	Icv; immediately or at 1, 2, or, 3 hours after MCAO	
	Result:	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.

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