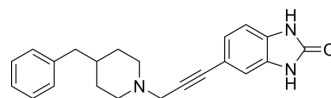


TCS 46b

Cat. No.:	HY-107707		
CAS No.:	302799-86-6		
Molecular Formula:	C ₂₂ H ₂₃ N ₃ O		
Molecular Weight:	345.44		
Target:	iGluR		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (289.49 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.8949 mL	14.4743 mL	28.9486 mL
5 mM	0.5790 mL	2.8949 mL	5.7897 mL
10 mM	0.2895 mL	1.4474 mL	2.8949 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

TCS 46b (Compound 46b) is a potent, selective and orally active NMDA NR1A/2B receptor antagonist with an IC₅₀ of 5.3 nM^[1]. TCS 46b is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.

IC₅₀ & Target

IC₅₀: 5.3 nM (NR1A/2B), 35 μM (NR1A/2A), >100 μM (NR1A/2C), 0.5 μM (α-1 adrenergic receptor), 2.6 μM (dopamine D2)^[1]

In Vivo

TCS 46b (Compound 46b; 10 and 30 mg/kg; p.o. or i.p.; once) potentiates the effects of L-DOPA in the 6-OHDA-lesioned rat^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Sprague-Dawley rats, 6-hydroxydopamine-lesioned (6-OHDA) rat model ^[1]
Dosage:	10 and 30 mg/kg
Administration:	PO or IP, once

Result:	Showned significant potentiation of the effects of L-DOPA in this model.
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REFERENCES

[1]. Wright JL, et al. Subtype-selective N-methyl-D-aspartate receptor antagonists: synthesis and biological evaluation of 1-(heteroarylalkynyl)-4-benzylpiperidines. J Med Chem. 2000 Sep 7;43(18):3408-19.

[2]. Wright JL, et al. Subtype-selective N-methyl-D-aspartate receptor antagonists: synthesis and biological evaluation of 1-(heteroarylalkynyl)-4-benzylpiperidines. J Med Chem. 2000 Sep 7;43(18):3408-19.

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

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