BGC20-761

Cat. No.: HY-21995

CAS No.: 17375-63-2

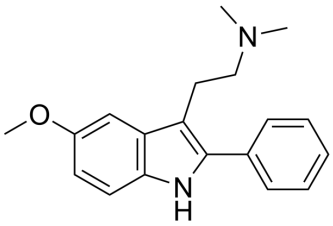
Molecular Formula: $C_{19}H_{22}N_2O$

Molecular Weight: 294.39

Target: 5-HT Receptor; Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	BGC20-761 is a selecvtive 5-HT6 and dopamine receptor antagonist (human receptor K_i values: 5-HT6 (20 nM), 5-HT2A (69 nM), D2 (140 nM). BGC20-761, can enhance long-term memory. BGC20-761 has potential utility as an antipsychotic agent[1].

IC_{50} & Target	Human 5-HT_6 Receptor 20 nM (Ki)	Human 5-HT_{2A} Receptor 69 nM (Ki)	Human D_2 Receptor 140 nM (Ki)

In Vitro	BGC20-761 has highly potent and selective 5-HT6 receptor antagonist activity; rat K_i values for other rats receptors: 5-HT2A (470 nM), 5-HT2C (675 nM), D2, D3, D4, DAT and SERT (>10,000 nM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	BGC20-761 enhances memory consolidation and reverses scopolamine-induced memory deficit in social and visuospatial memory tasks through a 5-HT6 receptor-mediated mechanism. BGC20-761 (2.5 mg/kg, 5 mg/kg and 10 mg/kg; i.p.) alone has no effect on social recognition in young rats, however, at doses of 5 mg/kg and 10 mg/kg i.p, BGC20-761 dose-dependently reverses a deficit of social recognition induced by Scopolamine (0.4 mg/kg i.p.)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Forty-two male 8-week-old Longe Evans rats and 12 male four-week-old SpragueeDawley rats[1]
Dosage:	2.5 mg/kg, 5 mg/kg and 10 mg/kg
Administration:	Administered (i.p.) immediately after the training session for the social recognition test
Result:	Administered alone did not show any difference in social recognition as compared to saline treated control animals. However, 5 mg/kg and 10 mg/kg reversed a Scopolamine induced deficit in social recognition.

REFERENCES

[1]. Ellen S Mitchell, et al. BGC20-761, a novel tryptamine analog, enhances memory consolidation and reverses scopolamine-induced memory deficit in social and visuospatial memory tasks through a 5-HT6 receptor-mediated mechanism. Neuropharmacology. 2006 Mar;50(4):412-20.

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

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