

BGC 20-761

Chemical Properties

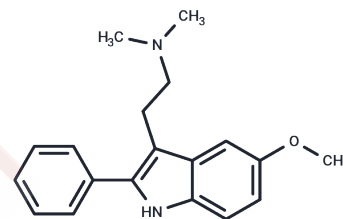
CAS No. : 17375-63-2

Formula: C₁₉H₂₂N₂O

Molecular Weight: 294.39

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	BGC20-761 is a selective 5-HT ₆ and dopamine receptor antagonist (human receptor K _i values: 5-HT ₆ (20 nM), 5-HT _{2A} (69 nM), D ₂ (140 nM)), and a tryptamine analog with a high affinity for 5-HT ₆ receptors, that can enhance long-term memory, with potential utility as an antipsychotic agent [1].
Targets(IC ₅₀)	Others,5-HT Receptor,Dopamine Receptor
In vitro	BGC20-761 is a highly efficient and selective 5-HT ₆ receptor antagonist; rat K _i values for other rats receptors: 5-HT _{2A} (470 nM), 5-HT _{2C} (675 nM), D ₂ , D ₃ , D ₄ , DAT and SERT (>10,000 nM) [1].
In vivo	BGC20-761 effectively improves memory consolidation and mitigates scopolamine-induced deficits in both social and visuospatial memory tasks through a 5-HT ₆ receptor-mediated mechanism. Specifically, while BGC20-761 at doses of 2.5 mg/kg, 5 mg/kg, and 10 mg/kg, administered intraperitoneally (i.p.), does not alter social recognition in young rats on its own, it significantly counteracts the social recognition impairment caused by Scopolamine (0.4 mg/kg i.p.) in a dose-dependent manner at 5 mg/kg and 10 mg/kg. This study utilized forty-two 8-week-old male Long Evans rats and twelve 4-week-old male Sprague Dawley rats. Although the administration of BGC20-761 alone showed no notable difference in social recognition when compared to saline-treated controls, doses of 5 mg/kg and 10 mg/kg effectively reversed the deficit in social recognition induced by Scopolamine when administered immediately after the training session for the social recognition test.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3969 mL	16.9843 mL	33.9685 mL
5 mM	0.6794 mL	3.3969 mL	6.7937 mL
10 mM	0.3397 mL	1.6984 mL	3.3969 mL
50 mM	0.0679 mL	0.3397 mL	0.6794 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481