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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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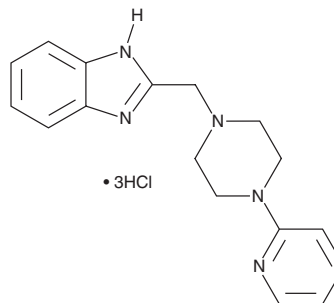
PRODUCT INFORMATION



ABT-724 (hydrochloride)

Item No. 29506

CAS Registry No.: 587870-77-7
Formal Name: 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole, trihydrochloride
MF: C₁₇H₁₉N₅ • 3HCl
FW: 402.8
Purity: ≥98%
UV/Vis.: λ_{max}: 245, 270, 276, 317 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ABT-724 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the ABT-724 (hydrochloride) in water. We do not recommend storing the aqueous solution for more than one day.

Description

ABT-724 is a dopamine D₄ receptor agonist with an EC₅₀ value of 12.4 nM in a FLIPR calcium flux assay using HEK293 cells expressing the human D_{4.4} receptor and Gα_{qo5}.¹ It is selective for dopamine D₄ over D₂ receptors at 10 μM. ABT-724 (0.03 μmol/kg) induces penile erections in 77% of male rats. It decreases mounting frequency and ejaculation latency and increases ejaculation frequency and copulatory efficacy in male rats when administered at a dose of 0.04 mg/kg.² ABT-724 (0.16 and 0.64 mg/kg) decreases hyperactivity and exploratory behavior in the open field test in an adolescent spontaneously hypertensive rat (SHR) model of attention-deficit hyperactivity disorder (ADHD).³

References

1. Cowart, M., Latshaw, S.P., Bhatia, P., *et al.* Discovery of 2-(4-pyridin-2-ylpiperazin-1-ylmethyl)-1H-benzimidazole (ABT-724), a dopaminergic agent with a novel mode of action for the potential treatment of erectile dysfunction. *J. Med. Chem.* **47(15)**, 3853-3864 (2004).
2. Sanna, F., Contini, A., Melis, M.R., *et al.* Role of dopamine D₄ receptors in copulatory behavior: Studies with selective D₄ agonists and antagonists in male rats. *Pharmacol. Biochem. Behav.* **137**, 110-118 (2015).
3. Yin, P., Cao, A.-H., Yu, L., *et al.* ABT-724 alleviated hyperactivity and spatial learning impairment in the spontaneously hypertensive rat model of attention-deficit/hyperactivity disorder. *Neurosci. Lett.* **580**, 142-146 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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