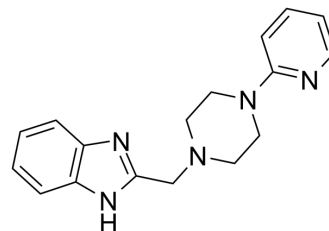


ABT-724

Cat. No.:	HY-14330
CAS No.:	70006-24-5
Molecular Formula:	C ₁₇ H ₁₉ N ₅
Molecular Weight:	293.37
Target:	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	<p>ABT-724 is a potent and highly selective dopamine D₄ receptor agonist with an EC₅₀ of 12.4 nM for human dopamine D₄ receptor. ABT-724 is a potent partial agonist at the rat D₄ (EC₅₀ of 14.3 nM) and the ferret D₄ receptor (EC₅₀ of 23.2 nM). ABT-724 has no effect on dopamine D₁, D₂, D₃, or D₅ receptors. ABT-724 could be useful for the treatment of erectile dysfunction and has favorable side-effect profile^[1].</p>									
IC₅₀ & Target	<p>EC₅₀: 12.4 nM (Human dopamine D₄ receptor), 14.3 nM (Rat dopamine D₄ receptor) and 23.2 nM (Ferret dopamine D₄ receptor)^[1]</p>									
In Vitro	<p>ABT-724 exhibits a selective biochemical profile, as indicates by a lack of binding affinity for >70 neurotransmitter/uptake/ion channels including D₂, D₃, or D₅ receptors up to a 10 μM concentration. A weak affinity to 5-HT_{1A} receptors (K_i = 2780 nM) is observed. ABT-724 does not inhibit the PDE activity of PDE1, PDE5, or PDE6 at 10 μM concentrations^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>									
In Vivo	<p>ABT-724 (8.8 μg/kg; subcutaneous injection; daily; for 5 days; male adult Wistar rats) treatment dose-dependently facilitates penile erection when given s.c. to conscious rats^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>Male adult Wistar rats (~300 g)^[1]</td> </tr> <tr> <td>Dosage:</td> <td>8.8 μg/kg</td> </tr> <tr> <td>Administration:</td> <td>Subcutaneous injection; daily; for 5 days</td> </tr> <tr> <td>Result:</td> <td>Dose-dependently facilitated penile erection.</td> </tr> </table>		Animal Model:	Male adult Wistar rats (~300 g) ^[1]	Dosage:	8.8 μg/kg	Administration:	Subcutaneous injection; daily; for 5 days	Result:	Dose-dependently facilitated penile erection.
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Dosage:	8.8 μg/kg									
Administration:	Subcutaneous injection; daily; for 5 days									
Result:	Dose-dependently facilitated penile erection.									

REFERENCES

[1]. Brioni JD, et al. Activation of dopamine D₄ receptors by ABT-724 induces penile erection in rats. Proc Natl Acad Sci U S A. 2004 Apr 27;101(17):6758-63.

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

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