

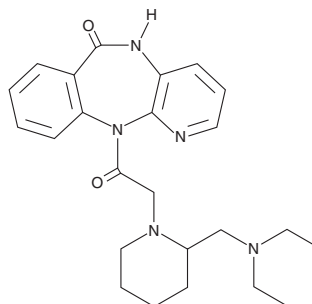
PRODUCT INFORMATION



AF-DX 116

Item No. 30871

CAS Registry No.: 102394-31-0
Formal Name: 11-[2-[2-[(diethylamino)methyl]-1-piperidinyl]acetyl]-5,11-dihydro-6H-pyrido[2,3-b][1,4]benzodiazepin-6-one
MF: C₂₄H₃₁N₅O₂
FW: 421.5
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

AF-DX 116 is supplied as a solid. A stock solution may be made by dissolving the AF-DX 116 in the solvent of choice, which should be purged with an inert gas. AF-DX 116 is soluble in the organic solvent DMSO at a concentration of approximately 25 mM.

Description

AF-DX 116 is an antagonist of M₂ muscarinic acetylcholine receptors (K_i = 0.2 μM).¹ It is selective for cardiac M₂ over salivary gland M₃ receptors (K_i = 5.01 μM) but also binds sympathetic ganglia M₁ receptors (K_i = 0.81 μM). AF-DX 116 (0.1 μM) increases vagus nerve stimulation-induced increases in perfusion pressure by 50% in isolated perfused rat hearts.² It increases systolic blood pressure and heart rate in a rat model of hypotension induced by repeated cold stress when administered intravenously at doses of 50, 100, and 200 μg/kg.³

References

1. Doods, H.N., Mathy, M.-J., Davidesko, D., *et al.* Selectivity of muscarinic antagonists in radioligand and *in vivo* experiments for the putative M₁, M₂ and M₃ receptors. *J. Pharmacol. Exp. Ther.* **242**(1), 257-262 (1987).
2. Bogner, I.T., Beinhauer, B., Kann, P., *et al.* Different muscarinic receptors mediate autoinhibition of acetylcholine release and vagally-induced vasoconstriction in the rat isolated perfused heart. *Naunyn Schmiedeberg's Arch. Pharmacol.* **341**(4), 279-287 (1990).
3. Hata, T., Itoh, E., Funakami, Y., *et al.* Blood pressure and heart rate are increased by AF-DX 116, a selective M₂ antagonist, in autonomic imbalanced and hypotensive rats caused by repeated cold stress. *Jpn. J. Pharmacol.* **85**(3), 313-321 (2001).

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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