

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



DATASHEET

AF-DX 116

Product overview

Name	AF-DX 116
Cat No	HB1501
Alternative names	Otenzepad
Biological action	Antagonist
Purity	>98%
Description	Selective, competitive M ₂ receptor antagonist

Biological Data

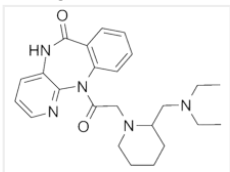
Biological description	Selective and competitive M ₂ muscarinic receptor antagonist. Selective for M ₂ over M ₃ (K _i values are 64 and 786 nM respectively). Shows selectivity for cardiac muscarinic receptors. Shows hypertensive actions and increases heart rate in cold-stressed rats.
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Please note this item is not for sale in Canada

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (25mM, gentle warming)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	11-[[2-[(Diethylamino)methyl]-1-piperidinyl]acetyl]-5,11-dihydro-6H-pyrido[2,3-b][1,4]benzodiazepin-6-one
Molecular Weight	421.54
Chemical structure	
Molecular Formula	C ₂₄ H ₃₁ N ₅ O ₂
CAS Number	102394-31-0
PubChem identifier	107867
SMILES	CCN(CC)CC1CCCCN1CC(=O)N1C2=C(C=CC=C2)C(=O)NC2=CC=CN=C12
InChiKey	UBRKDAVQCKZSPO-UHFFFAOYSA-N

References

Binding profile of a novel cardioselective muscarine receptor antagonist, AF-DX 116, to membranes of peripheral tissues and brain in the rat.

Hammer R *et al* (1986) Life Sci 38(18)

PubMedID [3754610](#)

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.

Hata T *et al* (2001) Jpn J Pharmacol 85(3)

PubMedID [11325025](#)

BK channel $\beta 1$ subunits regulate airway contraction secondary to M2 muscarinic acetylcholine receptor mediated depolarization.

Semenov I *et al* (2011) J Physiol 589(Pt 7)

PubMedID [21300746](#)
