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DATASHEET

AF-DX 116

Product overview

Name AF-DX 116 Cat No HB1501 **Alternative names** Otenzepad **Biological action** Antagonist **Purity** >98%

Description Selective, competitive M2 receptor antagonist

Biological Data

Biological description Selective and competitive M2 muscarinic receptor antagonist. Selective for M2 over M3 (K1 values are

64 and 786 nM respectively). Shows selectivity for cardiac muscarinic receptors. Shows hypertensive

actions and increases heart rate in cold-stressed rats.

Please note this item is not for sale in Canada

Solubility & Handling

Solubility overview Soluble in DMSO (25mM, gentle warming) Storage instructions Room temperature

Storage of solutions Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if

storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Shipping Conditions Stable for ambient temperature shipping. Follow storage instructions on receipt. **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-pip eridinyl]acetyl]-5,11-dihydro-6*H*-pyrido[2,3-*b*][1,4

|benzodiazepin-6-one

Molecular Weight Chemical structure

421.54

Molecular Formula $C_{24}H_{31}N_5O_2$ **CAS Number** 102394-31-0 PubChem identifier 107867

CCN(CC)CC1CCCCN1CC(=O)N1C2=C(C=CC=C2)C(=O)NC2=CC=CN=C12 **SMILES**

UBRKDAVQCKZSPO-UHFFFAOYSA-N InChiKey

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 β1 subunits regulate airway contraction secondary to M2 muscarinic acetylcholine receptor mediated depolarization.

Semenov I *et al* (2011) J Physiol 589(Pt 7) **PubMedID**21300746