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

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

customercare-usa@hellobio.com

DATASHEET

PD 102807

Product overview

Name	PD 102807
Cat No	HB1509
Biological action	Antagonist
Purity	>98%
Description	Potent, selective M_4 receptor antagonist. Promotes erythroid progenitors expansion.

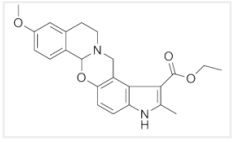
Biological Data

Biological description	Potent and selective M_4 muscarinic receptor antagonist (IC_{50} = 90.7 nM). Shows 72-, 38-, 10- and 82-fold selectivey for M_4 over M_1, M_2, M_3 and M_5 receptors respectively. Also promotes erythroid progenitors expansion.

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (100mM)
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	3,6a,11,14-Tetrahydro-9-methoxy-2-methyl-(12*H*)-isoquino[1,2-*b*]pyrrolo[3,2-*f*][1,3]benzoxazine-1-carboxylic acid, ethyl ester
Molecular Weight	392.45
Chemical structure	
Molecular Formula	$C_{23}H_{24}N_2O_4$
CAS Number	23062-91-1
PubChem identifier	4995951
SMILES	CCOC(=O)C1=C(NC2=C1C3=C(C=C2)OC4C5=C(CCN4C3)C=C(C=C5)OC)C
InChi	InChI=1S/C23H24N2O4/c1-4-28-23(26)20-13(2)24-18-7-8-19-17(21(18)20)12-25-10-9-14-11-15(27-3)5-6-16(14)22(25)29-19/h5-8,11,22,24H,4,9-10,12H2,1-3H3
InChiKey	VDDUJINYXKGZLV-UHFFFAOYSA-N

References

Identification and characterization of m4 selective muscarinic antagonists.

Augelli-Szafran CE *et al* (1998) Bioorg Med Chem Lett 8(15)
PubMedID 9873472

Muscarinic modulation of synaptic transmission via endocannabinoid signalling in the rat midbrain periaqueductal gray.

Lau BK *et al* (2008) Mol Pharmacol 74(5)
PubMedID 18678620

A novel muscarinic M(4) receptor antagonist provides further evidence of an autoreceptor role for the muscarinic M(2) receptor sub-type.

Kitaichi K *et al* (1999) Eur J Pharmacol 383(1)
PubMedID 10556681

Synthesis and pharmacology of benzoxazines as highly selective antagonists at M(4) muscarinic receptors.

Bã?hme TM *et al* (2002) J Med Chem 45(14)
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