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Data Sheet

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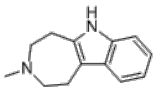
Product Name	:	DM506
Cat. No.	:	PC-21718
CAS No.	:	7546-66-9
Molecular Formula	:	$C_{13}H_{16}N_2$
Molecular Weight	:	200.29
Target	:	nAChR
Solubility	:	10 mM in DMSO



CAS: 7546-66-9

Biological Activity

Ibogaminalog (DM506) is a novel ibogamine derivative and inhibitor of **α7** and **α9α10** nicotinic acetylcholine receptors (**nAChRs**) with IC50 of 5.1 uM, 5.6 uM and 6.4 uM for α9α10, α7β2 and α7nAChR, respectively.
DM506 shows no significance differences between rat and human α7 and α9α10 nAChRs.
DM506 shows weak activity against α4β2, α6/α3β2β3 and α3β4 (IC50=25-70 uM).
DM506 inhibits the α7 and α9α10 nAChRs in a voltage-dependent and voltage-independent manner, respectively.
DM506 inhibits both α9α10 and α7 nAChR subtypes by novel allosteric mechanisms likely involving modulation of the extracellular-transmembrane domain junction and cytoplasmic domain.
DM506 induces sedative- and anxiolytic-like activity in mice by a mechanism involving 5-HT2A receptor activation.

References

Tae HS, et al. ***ACS Chem Neurosci.*** 2023 Jul 19;14(14):2537-2547.

Arias HR, et al. ***Eur J Pharmacol.*** 2024 Jan 20;966:176329.

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