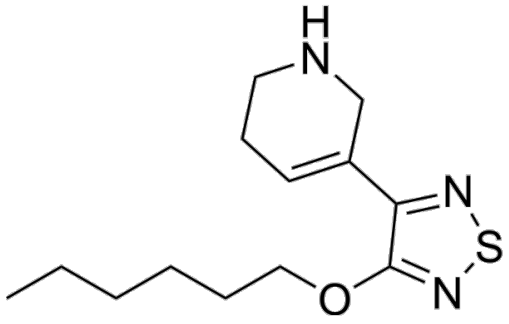
Product Data Sheet

Product Name: N-Desmethyl xanomeline
Cat. No.: GC79779

Chemical Properties

Cas. No.	131986-96-4		
Formula	$C_{13}H_{21}N_3OS$	M.Wt	267.39
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

N-Desmethyl xanomeline is a pharmacologically active metabolite of Xanomeline. N-Desmethyl xanomeline binds to muscarinic, serotonergic, histaminergic and dopaminergic receptors. N-Desmethyl xanomeline can be used for the research of schizophrenia [1].

In Vitro, N-Desmethyl xanomeline (0.1 nM-10 μM) exhibits a complex polypharmacological profile with potent binding to σ1, 5-HT2B, 5-HT1D, 5-HT7, and muscarinic receptors (Ki values range from 6.2 nM to 219 nM)[1]. N-Desmethyl xanomeline (10 μM) exhibits potential agonism at multiple

muscarinic, serotonergic, and histaminergic GPCRs[1]. N-Desmethyl xanomeline acts as a full or partial agonist at 5-HT1D (potencies 17-130 nM) and 5-HT1A (EC50 = 2.20 μM) receptors, and weak partial agonist at 5-HT2A, 5-HT2C, H3, and H4 receptors[1].

References:

[1]. Kensuke Sakamoto, et al. The polypharmacological profiles of xanomeline and N-desmethylxanomeline. bioRxiv. November 21, 2025.