

Product Data Sheet

Product Name: (±)-Nicotine-d₃

Cat. No.: GC46305

Chemical Properties

Cas. No. 69980-24-1

SMILES [2H]C([2H])([2H])N1CCCC1C2=CC=CN=C2

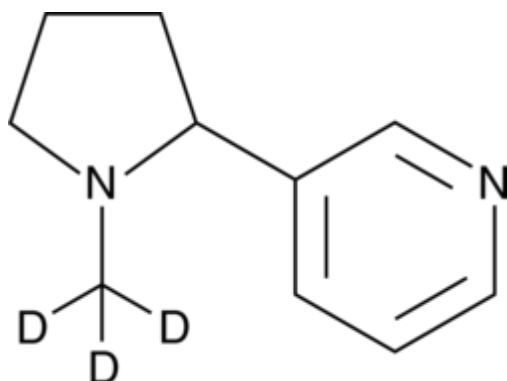
Formula C₁₀H₁₁D₃N₂ M.Wt 165.3

Solubility DMF: 50 mg/ml, DMSO: 30 mg/ml, Ethanol: 50 mg/ml, PBS (pH 7.2): 1 mg/ml
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

(±)-Nicotine-d₃ is intended for use as an internal standard for the quantification of (±)-nicotine by GC- or LC-mass spectrometry. (±)-Nicotine is the racemic mixture of the dominant alkaloid found in tobacco plants. It acts as an agonist at neuronal nicotinic acetylcholine receptors (nAChRs; K_is = 481 and 11.1 nM for α3β4 and α4β2 subtypes, respectively) and possesses addictive and teratogenic properties.¹ (-)-(S)-Nicotine is significantly more active at binding nAChRs compared to the (+)-(R) antipode, thus nicotine is typically synthesized as (-)-(S)-nicotine with only 0.2-1% of the (+)-(R) isomer present.²

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

1.Zaveri, N., Jiang, F., Olsen, C., et al.Novel $\alpha 3\beta 4$ nicotinic acetylcholine receptor-selective ligands. Discovery, structure-activity studies, and pharmacological evaluationJ. Med. Chem.53(22)8187-8191(2010) 2.Clayton, P., Lu, A., and Bishop, L.The pyrolysis of (-)-(S)-nicotine: Racemization and decompositionChirality22(4)442-446(2010)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA