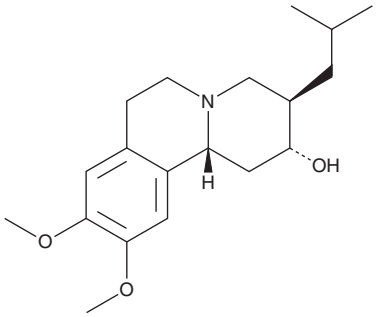
PRODUCT INFORMATION

NBI 98782

Item No. 42116

CAS Registry No.:	85081-18-1
Formal Name:	(2R)-1,3R,4,6,7,11bR-hexahydro-9,10-dimethoxy-3-(2-methylpropyl)-2H-benzo[a]quinolizin-2-ol
Synonyms:	α-Dihydrotetrabenazine, α-DTBZ
MF:	$C_{19}H_{29}NO_3$
FW:	319.4
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NBI 98782 is supplied as a solid. A stock solution may be made by dissolving the NBI 98782 in the solvent of choice, which should be purged with an inert gas. NBI 98782 is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

Description

NBI 98782 is an inhibitor of vesicular monoamine transport 2 (VMAT2; K_i = 3.96 nM) and an active metabolite of tetrabenazine (Item No. 20380) and valbenazine (Item No. 26809).[1] It is selective for VMAT2 over a panel of 80 receptors at 10 µM.[2] NBI 98782 (10 mg/kg) decreases dopamine, serotonin (5-HT), and norepinephrine levels and increases 3,4-dihydroxyphenylacetic acid (DOPAC), homovanillic acid (HVA), and 5-hydroxyindoleacetic acid (5-HIAA) levels in the mouse medial prefrontal cortex.[3] It induces ptosis and increases serum prolactin levels in rats when administered at a dose of 10 mg/kg.[2] NBI 98782 (10 mg/kg) inhibits PCP- and amphetamine-induced hyperactivity in mice.

References

1. Yao, Z., Wei, X., Wu, X., *et al.* Preparation and evaluation of tetrabenazine enantiomers and all eight stereoisomers of dihydrotetrabenazine as VMAT2 inhibitors. *Eur. J. Med. Chem.* **46(5)**, 1841-1848 (2011).
2. Grigoriadis, D.E., Smith, E., Hoare, S.R.J., *et al.* Pharmacologic characterization of valbenazine (NBI-98854) and its metabolites. *J. Pharmacol. Exp. Ther.* **361(3)**, 454-461 (2017).
3. Huang, M., He, W., Rajagopal, L., *et al.* Effects of NBI-98782, a selective vesicular monoamine transporter 2 (VMAT2) inhibitor, on neurotransmitter efflux and phencyclidine-induced locomotor activity: Relevance to tardive dyskinesia and antipsychotic action. *Pharmacol. Biochem. Behav.* **190:172872**, (2020).

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