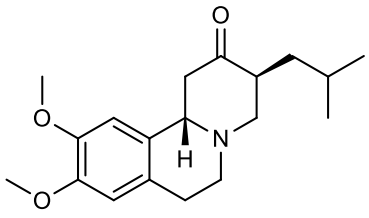
Catalog # 10-2672

Tetrabenazine

58-46-8

(3R,11bR)-*rel*-1,3,4,6,7,11b-Hexahydro-9,10-dimethoxy-3-(2-methylpropyl)-2H-benzo[a]quinolizin-2-one

Lot # X105327



Potent inhibitor of the vesicular monoamine transporter (VMAT), IC_{50}=3.2 nM[1,2] with selectivity for VMAT2 over VMAT1[3]. Promotes late stage differentiation of Pdx1-positive pancreatic progenitor cells into Neurog3-positive endocrine precursors[4].

1) Scherman *et al*. (1983), *Characterization of the monoamine carrier of chromaffin granule membrane by binding of [2-3H]dihydrotetrabenazine*; Proc. Natl. Acad. Sci. USA, **80** 584

2) Peter *et al*. (1996), *Chimeric vesicular monoamine transporters identify structural domains that influence substrate affinity and sensitivity to tetrabenazine*; J. Biol. Chem., **271** 2979

3) Schafer *et al*. (2013), *Localization and expression of VMAT2 across mammalian species: a translational guide for it's visualization and targeting in health and disease*; Adv. Pharmacol., **68** 319

4) Sakano *et al*. (2014), *VMAT2 identified as a regulator of late-stage β-cell differentiation*; Nat. Chem. Biol., **10** 141

PHYSICAL DATA

Molecular Weight:	317.43
Molecular Formula:	$C_{19}H_{27}NO_3$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 30 mg/ml), Ethanol (9 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at room temperature for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 week.

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