PRODUCT INFORMATION



Valbenazine

Item No. 26809

CAS Registry No.: 1025504-45-3

Formal Name: L-valine, (2R,3R,11bR)-

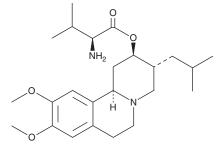
> 1,3,4,6,7,11b-hexahydro-9,10dimethoxy-3-(2-methylpropyl)-2H-benzo[a]quinolizin-2-yl ester

Synonym: NBI-98854 MF: $C_{24}H_{38}N_2O_4$ FW: 418.6 **Purity:** ≥98%

Supplied as: A crystalline 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

Valbenazine is supplied as a crystalline solid. A stock solution may be made by dissolving the valbenazine in the solvent of choice, which should be purged with an inert gas. Valbenazine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of valbenazine in these solvents is approximately 10, 25, and 30 mg/ml, respectively.

Valbenazine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, valbenazine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Valbenazine has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Valbenazine is an inhibitor of vesicular monoamine transporter 2 (VMAT2; Kis = 110 and 150 nM in rat striatum homogenates and human platelets, respectively). It is selective for VMAT2 over a panel of 80 receptors, transporters, and ion channels, including the serotonin (5-HT) receptor subtypes 5-HT_{1 Δ}, 5-HT_{2 Δ}, and $5-HT_{2B}$ and dopamine D_1 and D_2 receptors. Valbenazine induces ptosis in rats, indicating norepinephrine depletion. Formulations containing valbenazine have been used in the treatment of tardive dyskinesia.

Reference

1. 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).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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