Tranylcypromine - LSD1 Demethylase Inhibitor

Catalog Number X042-1EA

ARBOR ASSAYS®

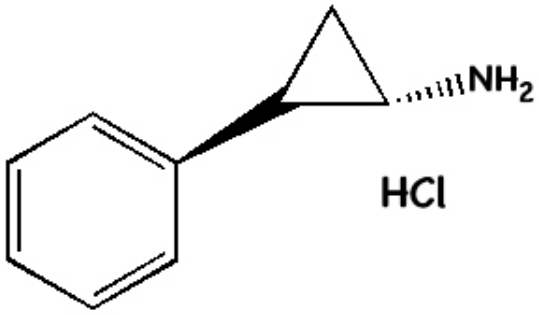
FEATURES

- Inhibitor of LSD1 histone demethylase
- Ready-to-use prefilled vial
- Add 1 mL of water or buffer to yield a 10 mM solution

INTRODUCTION

Formaldehyde is a common by-product formed in the oxidative demethylation of proteins, nucleic acids, and biological small molecules. Examples include histone demethylases (HDMs) and cytochrome P450 enzymes that demethylate drugs and other xenobiotic compounds. HDMs catalyze the site-specific demethylation of methyl-lysine residues in histones to regulate chromatin structure, gene expression, and other genomic functions. Lysine-specific HDMs were first discovered in 2004 and are currently among the most actively studied formaldehyde-producing enzymes. There are two known classes of HDMs: the flavin adenine nucleotide-dependent Lysine Specific Demethylase 1 (LSD1) family and the Fe(II)-dependent *Jumonji* C (JmjC) family. Tranylcypromine (trans-2-Phenylcyclopropylamine hydrochloride) is an inhibitor of LSD1, a histone H3 demethylase, with an IC50 > 2µM. Treatment of P19 embryonal carcinoma cells with tranylcypromine resulted in global increase in Histone H3 Lysine 4 methylation.

Chemical Structure:



Chemical Formula:	$C_9H_{11}N \cdot HCl$
Formula Weight:	169.65
CAS No.:	1986-47-6
Related Products:	Histone Demethylase Fluorescent Activity Kit, K010-F1

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