

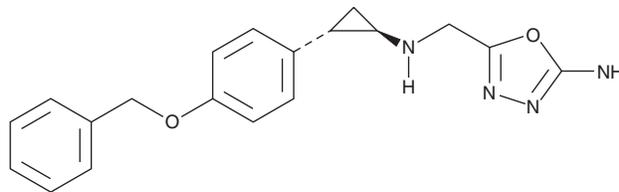
PRODUCT INFORMATION



ORY-2001

Item No. 43663

CAS Registry No.: 1357362-02-7
Formal Name: 5-amino-N-[(1R,2S)-2-[4-(phenylmethoxy)phenyl]cyclopropyl]-1,3,4-oxadiazole-2-methanamine
Synonym: Vafidemstat
MF: C₁₉H₂₀N₄O₂
FW: 336.4
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

ORY-2001 is supplied as a solid. A stock solution may be made by dissolving the ORY-2001 in the solvent of choice, which should be purged with an inert gas. ORY-2001 is slightly soluble (0.1-1 mg/ml) in acetonitrile and DMSO.

Description

ORY-2001 is a covalent inhibitor of lysine-specific demethylase 1 (LSD1) and monoamine oxidase B (MAO-B; IC₅₀s = 0.101 and 0.073 μM, respectively).¹ It is selective for LSD1 and MAO-B over MAO-A (IC₅₀ = 5.47 μM) and LSD2, spermine oxidase (SMOX), and L-amino acid oxidase (LAAO) at 10 μM, as well as a panel of 19 additional epigenetic targets and a panel of 92 receptors, ion channels, enzymes, and transporters at 10 μM. ORY-2001 induces differentiation in THP-1 acute myeloid leukemia (AML) cells (EC₅₀ = 21 nM). *In vivo*, ORY-2001 (0.11-3.2 mg/kg) reverses memory deficits in the SAMP8 mouse model of accelerated aging and Alzheimer's disease. It also reduces aggression in SAMP8 mice when administered at a dose of 0.96 mg/kg. ORY-2001 (0.05-1 mg/kg) decreases disease severity in a mouse model of experimental autoimmune encephalomyelitis (EAE).²

References

1. Maes, T., Mascaró, C., Rotllant, D., *et al.* Modulation of KDM1A with vafidemstat rescues memory deficit and behavioral alterations. *PLoS One* **15**(5), e0233468 (2020).
2. Cavalcanti, F., Gonzalez-Rey, E., Delgado, M., *et al.* Efficacy of vafidemstat in experimental autoimmune encephalomyelitis highlights the KDM1A/RCOR1/HDAC epigenetic axis in multiple sclerosis. *Pharmaceutics* **14**(7), 1420 (2022).

WARNING

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

SAFETY DATA

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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