DATASHEET
Tranylcypromine hydrochloride

Product overview

Name
Tranylcypromine hydrochloride
Cat No
HB1412
Alternative names
trans-2-phenylcyclopropylamine; 2-PCPA; Parnate
Biological action
Inhibitor
Purity
>98%
Description
LSD1 / MAO inhibitor. Enables reprogramming of mouse embryonic fibroblasts into iPS cells.

Biological Data

Biological description
Lysine-specific demethylase 1 (LSD1) and monoamine oxidase (MAO) inhibitor (IC₅₀ = < 2 µM for LSD1). Irreversible inhibition of LSD1, inhibits H3K4 demethylation. Enables reprogramming of mouse embryonic fibroblasts into iPS cells. Shows antidepressant actions.

Solubility & Handling

Storage instructions
room temperature (desiccated)
Solubility overview
Soluble in water (100mM) or DMSO (100mM)
Important
This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name
(±)-trans-2-Phenylcyclopropylamine hydrochloride
Molecular Weight
169.65
Chemical structure

Molecular Formula
C₉H₁₁N.HCl
CAS Number
1986-47-6
PubChem identifier
2723716
SMILES
N[C@H]1[C@H][C@@2=C=CC=CC=CC=CC=C2]1.Cl
InChIKey
ZPEFMSTTZXJOTM-OULXEKPRSA-N

References

trans-2-Phenylcyclopropylamine is a mechanism-based inactivator of the histone demethylase LSD1.
PubMedID
17367163

Histone H3 lysine 4 demethylation is a target of nonselective antidepressive medications.
Generation of human-induced pluripotent stem cells in the absence of exogenous Sox2.
Li W et al (2009) Stem Cells 27(12)

Tranylcypromine: new perspectives on an 'old' drug.