

SUBSTITUTED (E)-N'-(1-PHENYLETHYLIDENE)BENZOHYDRAZIDE ANALOGS AS HISTONE DEMETHYLASE INHIBITORS

ABSTRACT

Substituted (E)-N'-(1-phenylethylidene)benzohydrazide analogs or (3-(5-chloro-2-hydroxyphenyl)-4-METHYL-1 H-pyrazol-1-yl)(3-(morpholinosulfonyl)phenyl)methanone, derivatives thereof, and related compounds, which are useful as inhibitors of lysine-specific histone demethylase, including LSD1. Synthetic methods for making the compounds; pharmaceutical compositions comprising the compounds; and methods of using the compounds and compositions to treat disorders associated with dysfunction of the LSD1 (lysine-specific demethylase). A pharmaceutically acceptable salt, hydrate, solvate, or polymorph thereof, and one or more of: (a) at least one agent known to increase histone demethylase activity; (b) at least one agent known to decrease histone demethylase activity; (c) at least one agent known to treat a disorder of uncontrolled cellular proliferation; (d) at least one agent known to treat a neurodegenerative disorder; (e) instructions for treating a neurodegenerative disorder; or (f) instructions for treating a disorder associated with uncontrolled cellular proliferation.

(No suitable figure)