Tranylcypromine Sulfate

National Cancer Institute

Source

National Cancer Institute. Tranylcypromine Sulfate. NCI Thesaurus. Code C61980.

The sulfate salt form of tranylcypromine, an orally bioavailable, nonselective, irreversible, non-hydrazine inhibitor of both monoamine oxidase (MAO) and lysine-specific demethylase 1 (LSD1/BHC110), with antidepressant and anxiolytic activities, and potential antineoplastic activities. Upon oral administration, tranylcypromine exerts its antidepressant and anxiolytic effects through the inhibition of MAO, an enzyme that catalyzes the breakdown of the monoamine neurotransmitters serotonin, norepinephrine, epinephrine and dopamine. This increases the concentrations and activity of these neurotransmitters. Tranylcypromine exerts its antineoplastic effect through the inhibition of LSD1. Inhibition of LSD1 prevents the transcription of LSD1 target genes. LSD1, a flavin-dependent monoamine oxidoreductase and a histone demethylase, is upregulated in a variety of cancers and plays a key role in tumor cell proliferation, migration, and invasion.