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HDAC Class I/IIb Inhibitor HG146

National Cancer Institute

Source

National Cancer Institute. *HDAC Class I/IIb Inhibitor HG146*. NCI Thesaurus. Code C160706.

An orally available inhibitor of histone deacetylase (HDAC) classes I and IIb with potential antineoplastic activities. Upon oral administration, HDAC I/IIb inhibitor HG146 selectively inhibits the catalytic activity of class I and IIb HDACs, which results in an accumulation of highly acetylated chromatin histones, the induction of chromatin remodeling and an altered pattern of gene expression. This leads to the inhibition of tumor oncogene transcription, and the selective transcription of tumor suppressor genes, which inhibits tumor cell division and induces tumor cell apoptosis. HDAC, an enzyme upregulated in many tumor types, deacetylates chromatin histone proteins. Class I HDACs are located in the nucleus and include HDACs 1, 2, 3, and 8; class IIb HDACs include HDAC 6 and 10 and are located in both the nucleus and the cytoplasm.