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# Ricolinostat

National Cancer Institute

## Source

National Cancer Institute. *Ricolinostat*. NCI Thesaurus. Code C96431.

An orally bioavailable, specific inhibitor of histone deacetylase 6 (HDAC6) with potential antineoplastic activity. Ricolinostat selectively targets and binds to HDAC6, thereby disrupting the Hsp90 protein chaperone system through hyperacetylation of Hsp90 and preventing the subsequent aggresomal protein degradation. This leads to an accumulation of unfolded and misfolded ubiquitinated proteins and may eventually induce cancer cell apoptosis, and inhibition of cancer cell growth. HDAC6, a class II HDAC deacetylase located in the cytoplasm, appears to play a key role in the formation and activation of the aggresomes needed for degradation of misfolded proteins. Compared to non-selective HDAC inhibitor, ACY-1215 is able to reduce the toxic effects on normal, healthy cells.