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Marizomib

National Cancer Institute

Source

National Cancer Institute. *Marizomib*. NCI Thesaurus. Code C64634.

A naturally-occurring salinosporamide, isolated from the marine actinomycete *Salinospora tropica*, with potential antineoplastic activity. Marizomib irreversibly binds to and inhibits the 20S catalytic core subunit of the proteasome by covalently modifying its active site threonine residues; inhibition of ubiquitin-proteasome mediated proteolysis results in an accumulation of poly-ubiquitinated proteins, which may result in the disruption of cellular processes, cell cycle arrest, the induction of apoptosis, and the inhibition of tumor growth and angiogenesis. This agent may be more potent and selective than the proteasome inhibitor bortezomib.