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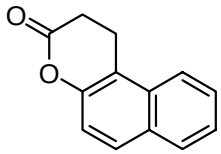
ProductInformation

Splitomicin

Product Number **S 4068**
Store at 2-8 °C

Cas #: 5690-03-9
Chemical Name: 1,2-Dihydro-3H-naphtho[2,1-b]pyran-3-one



Product Description
Molecular Formula: $C_{13}H_{10}O_2$
Molecular Weight: 198.2

Splitomicin is a cell-permeable lactone derived from β-naphthol, which selectively inhibits Sir2p (silence information regulator). Splitomicin inhibits the NAD^+ dependent histone deacetylase activity of Sir2p (IC_{50} = 60 μM). Sir2p, a heterochromatin component, is a NAD^+ dependent histone deacetylase required for gene silencing in yeast mating type interconversion. Active Sir2p is required for maintaining a silent state in nondividing cells. Sir2p regulates the higher order processes such as aging in *C. elegans*. It reduces the p53 (tumor suppressor) inactivation and potentiates p53-dependent apoptosis and radiosensitivity. Sir2p is an attractive drug target in cancer therapy and studies in aging, cellular senescence and regulation of gene expression.

References
1. Bedalov, A., et al., Identification of a small molecule inhibitor of Sir2p. Proc. Natl. Acad. Sci. USA, **98**, 15113-15118 (2001).

KAA 12/03