

# Tenovin-1

## Catalog No: tcsc1512



### Available Sizes

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



### Specifications

**CAS No:**  
380315-80-0

**Formula:**  
 $C_{20}H_{23}N_3O_2S$

**Pathway:**  
Autophagy;Epigenetics;Cell Cycle/DNA Damage;Apoptosis

**Target:**  
Autophagy;Sirtuin;Sirtuin;MDM-2/p53

**Purity / Grade:**  
>98%

**Solubility:**  
DMSO : 33.33 mg/mL (90.21 mM; Need ultrasonic)

**Observed Molecular Weight:**  
369.48

### Product Description

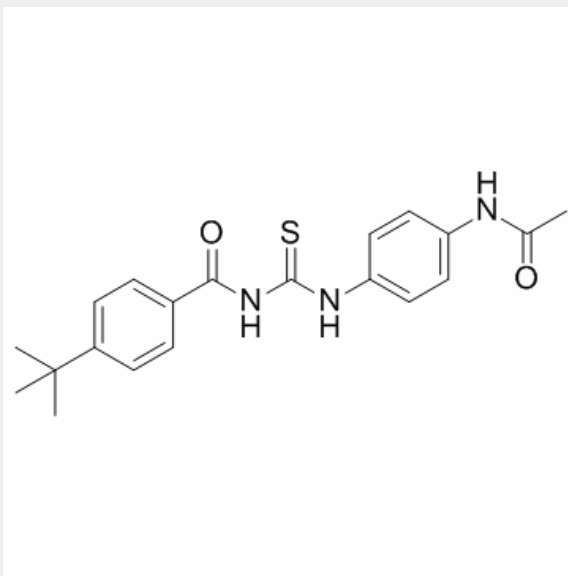
Tenovin-1 is an inhibitor of **sirtuin 1** and **sirtuin 2**, an activator of **p53** and may have potential in the management of cancer.

IC50 & Target: Sirtuin, MDM-2/p53<sup>[1]</sup>

***In Vitro:***

Tenovin-1 (1-10  $\mu$ M) induces a bell-shaped concentration-dependent cell death in SK-N-MC cells. Tenovin-1 alters the gene and protein expression of Bcl-2 family members. However, Tenovin-1 has a more powerful effect both on mRNA and protein expression levels at a lower concentration than does the higher concentration. Furthermore, Tenovin-1-induced cytotoxic effects depend on caspases in p53 wild-type WE-68 cells, but not in p53 null SK-N-MC cells. AIF plays a major role in tenovin-1-induced cell death in p53 null SK-N-MC cells, but not in p53 wild-type WE-68 cells. Reactive oxygen species are also involved in tenovin-1-mediated cell death in SK-N-MC cells. In addition, Tenovin-1 causes DNA damage in SK-N-MC cells<sup>[1]</sup>. Tenovin-1 (5  $\mu$ M) increases the nuclear size in glioblastoma cells and rat primary astrocytes. Tenovin-1 induces cellular senescence, which does not appear to be related to cell death<sup>[2]</sup>. Tenovin-1 protects p53 from mdm2-mediated degradation with little effect on p53 synthesis. Tenovin-1 targets a factor(s) upstream of p53 that not only modulates p53 function but also other cellular pathways. Tenovin-1 (10  $\mu$ M) inhibits Sirt2 deacetylase activity<sup>[3]</sup>. Tenovin-1 (10  $\mu$ M) reduces proliferation and anchorage independent growth of NSCLC cells. Tenovin-1 also inhibits cell growth of H358 lung cancer cells<sup>[4]</sup>.

***In Vivo:*** Tenovin-1 (92 mg/kg, i.p.) reduces growth of tumors in SCID mice derived from BL2 cells or ARN8 cells<sup>[5]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!