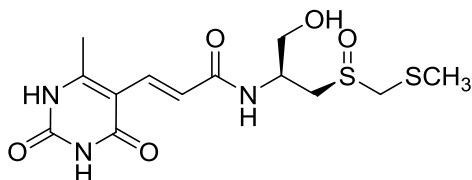


## Sparsomycin

Code No.: **BIA-S1798**

Pack sizes: **1 mg, 5 mg**



Synonyms : (+)-Sparsomycin, Sparsogenin B79B, U 19183, NSC 59729

## Specifications

CAS #	: <b>1404-64-4</b>
Molecular Formula	: <b>C<sub>13</sub>H<sub>19</sub>N<sub>3</sub>O<sub>5</sub>S<sub>2</sub></b>
Molecular Weight	: <b>361.4</b>
Source	: <b><i>Streptomyces</i> sp.</b>
Appearance	: <b>White solid</b>
Purity	: <b>&gt;95% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in ethanol, methanol, DMF or DMSO.</b>

## Application Notes

Sparsomycin is a nucleotide analogue produced by *Streptomyces sparsogenes* isolated by researchers at Upjohn (now Pfizer) in 1962. Sparsomycin binds to the 50S ribosomal subunit and inhibits protein synthesis via peptidyl transferase inhibition. Sparsomycin is very active against  $\kappa\beta$  human epidermoid carcinoma cells in tissue cultures and moderately active against Gram-positive and Gram-negative bacteria and fungi. The biosynthesis of sparsomycin has been extensively studied.

## References

1. Sparsomycin, a new antitumor antibiotic. I. Discovery and biological properties. Owen S.P. et al., *Antimicrob. Agents Chemother.* 1962, 772.
2. Antibiotics that bind to the A site of the large ribosomal subunit can induce mRNA translocation. Ermolenko D.N. et al., *RNA* 2013, 19, 158.
3. The biosynthesis of sparsomycin. Elucidation of the origins of the carbon skeleton. Parry R.J. & Eudy M.E., *J. Am. Chem. Soc.* 1988, 110, 2316.