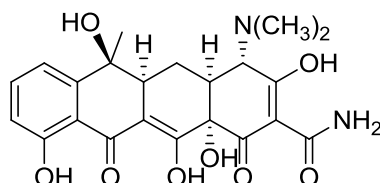


## Tetracycline

Code No.: **BIA-T1334**

Pack sizes: **5 mg, 25 mg**



Synonyms : Achromycin, Ambramycin

## Specifications

CAS #	: <b>60-54-8</b>
Molecular Formula	: <b>C<sub>22</sub>H<sub>24</sub>N<sub>2</sub>O<sub>8</sub></b>
Molecular Weight	: <b>444.4</b>
Source	: <b><i>Streptomyces</i> sp.</b>
Appearance	: <b>Yellow solid</b>
Purity	: <b>&gt;98% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.</b>

## Application Notes

Tetracycline is a linear tetracyclic broad spectrum antibiotic first prepared chemically by dechlorination of chlortetracycline and subsequently isolated from several *Streptomyces* species. Tetracycline has broad spectrum antibacterial and antiprotozoan activity, and acts by binding to the 30S and 50S ribosomal subunits blocking protein synthesis. Tetracycline is a pigment and, like many pigments, is degraded by light, oxygen, trace metal ions and pH variations. The purity of tetracycline is often variable, with significant levels of degradation products.

## References

1. Tetracycline. Conover L. 1955 US Patent 2,699,054.
2. Anhydrotetracycline is a major product of tetracycline photolysis. Hasan T.J. et al., Org. Chem. 1985, 50, 1755.
3. Kinetics of concomitant degradation of tetracycline to epitetracycline, anhydrotetracycline, and epianhydrotetracycline in acid phosphate solution. Yuen P.H. & Sokoloski T.D. J. Pharm. Sci. 1977, 66, 1648.