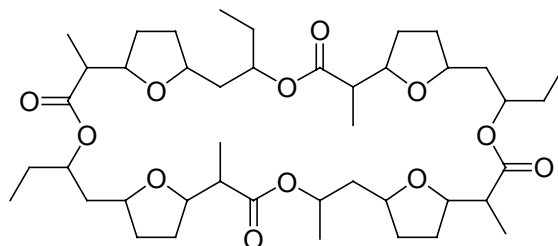


## Trinactin

Code: **BIA-T1094**

Pack sizes: **1.0 mg, 5.0 mg**



Synonyms : **Antibiotic AKD-1D, Antibiotic S 3466B**

## Specifications

CAS # : **7561-71-9**  
Molecular Formula : **C<sub>43</sub>H<sub>70</sub>O<sub>12</sub>**  
Molecular Weight : **779.0**  
Source : ***Streptomyces* sp. MST-AS5448**  
Appearance : **Colourless Film**  
Purity : **>95% by HPLC**  
Long Term Storage : **+4°C**  
Solubility : **Soluble in ethyl acetate or DMSO, moderately in soluble ethanol or methanol.**

## Application Notes

Trinactin is a member of the macrotetrolide complex produced by a range of *Streptomyces* sp. Early literature reported that trinactin is a monovalent cation ionophore with high selectivity for ammonium and potassium. Trinactin inhibited T-cell proliferation induced by IL-2 and cytokine production at nonomolar levels for IL-2, IL-4, IL-5 and interferon- $\gamma$ . Trinactin has not previously been available for intensive investigation.

## References

1. Effects of cyclosporin A and dinactin on T-cell proliferation, interleukin-5 production, and murine pulmonary inflammation. Umland S.P. et al. *Am. J. Respir. Cell Mol. Biol.* **1999**, 20, 481.
2. Immunosuppressive effects of polynactins (tetranactin, trinactin and dinactin) on experimental autoimmune uveoretinitis in rats. Tanouchi Y. et al. *Jpn. J. Ophthalmol.* **1987**, 31, 218.
3. Antibiotics as tools for metabolic studies. VI. Damped oscillatory swelling of mitochondria induced by nonactin, monactin, dinactin, and trinactin. Graven S.N. et al. *Biochemistry* **1966**, 5, 1735.