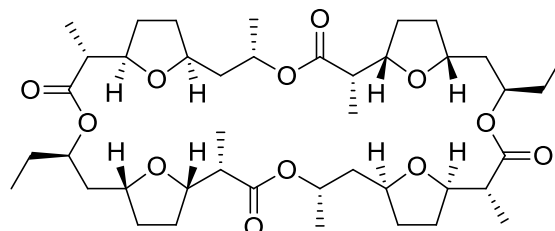


## Dinactin

Code No.: **BIA-D1027**

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



Synonyms : AKD 1C, S 3466A

## Specifications

CAS #	: 20261-85-2
Molecular Formula	: <b>C<sub>42</sub>H<sub>68</sub>O<sub>12</sub></b>
Molecular Weight	: <b>765.0</b>
Source	: <b><i>Streptomyces</i> sp.</b>
Appearance	: <b>Colourless Film</b>
Purity	: <b>&gt;95% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.</b>

## Application Notes

Dinactin is a member of the macrotetrolide complex produced by a range of *Streptomyces* species. It is a monovalent cation ionophore with high selectivity for ammonium and potassium. Dinactin inhibits T-cell proliferation induced by IL-2 and cytokine production at nanomolar levels for IL-2, IL-4, IL-5 and interferon- $\gamma$ . Dinactin 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.