

## Dinactin PRODUCT DATA SHEET

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Product Name:	Dinactin
Product Number:	D057
CAS Number:	20261-85-2
Molecular Formula:	C <sub>42</sub> H <sub>68</sub> O <sub>12</sub>
Molecular Weight:	765.0
Appearance:	Colourless Film
Storage Conditions:	-20°C
Description:	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-?. Dinactin has not previously been available for intensive investigation.
	Dinactin is soluble in ethanol, methanol, DMF and DMSO.
Mechanism of Action:	Dinactin inhibits T-cell proliferation induced by IL-2 and cytokine production at nanomolar levels for IL-2, IL-4, IL-5 and interferon-γ.
References:	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.
	Immunosuppressive effects of polynactins (tetranactin, trinactin and dinactin) on experimental autoimmune uveoretinitis in rats. Tanouchi Y. et al., Jpn. J. Ophthalmol., 1987, 31, 218.
	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.

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