

# PRODUCT INFORMATION



## Trinactin

Item No. 25741

CAS Registry No.: 7561-71-9

Formal Name: (1R,2R,5R,7R,10S,11S,14S,16S,19R,20R,23R,25R,28S,29S,32S,34S)-5,14,23-triethyl-2,11,20,29,32-pentamethyl-4,13,22,31,37,38,39,40-octaoxapentacyclo[32.2.1.1<sup>7,10</sup>.1<sup>16,19</sup>.1<sup>25,28</sup>]tetracontane-3,12,21,30-tetrone

MF: C<sub>43</sub>H<sub>70</sub>O<sub>12</sub>

FW: 779.0

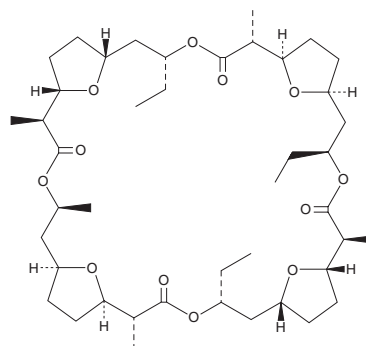
Purity: ≥95%

Supplied as: A film

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Streptomyces* sp.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

Trinactin is supplied as a film. A stock solution may be made by dissolving the trinactin in the solvent of choice, which should be purged with an inert gas. Trinactin is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

## Description

Trinactin is a macrotetrolide antibiotic produced by *Streptomyces* and an ionophore for monovalent cations, such as sodium, potassium, and ammonium.<sup>1-3</sup> It is commonly used to facilitate the movement of monovalent cations through natural and artificial lipid membranes.<sup>2</sup>

## References

1. Silva, L.J., Crevelin, E.J., Souza, W.R., *et al.* *Streptomyces araujoniae* produces a multiantibiotic complex with ionophoric properties to control *Botrytis cinerea*. *Phytopathology* **104**(12), 1298-1305 (2014).
2. Lapointe, J.-Y. and Laprade, R. Kinetics of carrier-mediated ion transport in two new types of solvent-free lipid bilayers. *Biophys. J.* **39**(2), 141-150 (1982).
3. Hladky, S.B. Steady-state ion transport by nonactin and trinactin. *Biochim. Biophys. Acta* **375**(3), 350-362 (1975).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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