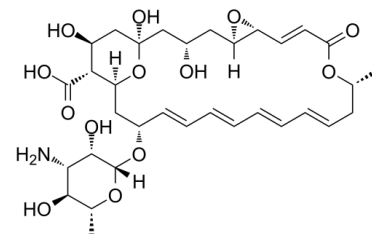


## Data Sheet

<b>Product Name:</b>	Natamycin
<b>Cat. No.:</b>	CS-1909
<b>CAS No.:</b>	7681-93-8
<b>Molecular Formula:</b>	C <sub>33</sub> H <sub>47</sub> NO <sub>13</sub>
<b>Molecular Weight:</b>	665.73
<b>Target:</b>	Fungal
<b>Pathway:</b>	Anti-infection
<b>Solubility:</b>	DMSO : 10.75 mg/mL (16.15 mM; Need warming)



### BIOLOGICAL ACTIVITY:

Natamycin (pimaricin) is an antifungal macrolide polyene that binds to cell membrane sterols. Target: Antifungal Natamycin (INN), also known as pimaricin and sometimes sold as Natacyl, is a naturally occurring antifungal agent produced during fermentation by the bacterium *Streptomyces natalensis*, commonly found in soil. Natamycin has a very low solubility in water; however, natamycin is effective at very low levels. There is an MIC (minimum inhibitory concentration) of less than 10 ppm for most molds. Natamycin is classified as a macrolide polyene antifungal and, as a drug, is used to treat fungal keratitis. It is especially effective against *Aspergillus* and *Fusarium* corneal infections. Other common members of the polyene macrolide antifungal family are amphotericin B, nystatin, and filipin. Natamycin is also used in the food industry as a natural preservative. Natamycin is used to treat fungal infections, including *Candida*, *Aspergillus*, *Cephalosporium*, *Fusarium* and *Penicillium*. It is applied as a cream, in eyedrops, or (for oral infections) in a lozenge. Natamycin shows negligible absorption into the body when administered in these ways. When taken orally, little or none is absorbed from the gastrointestinal tract, making it inappropriate for systemic infections.

### References:

- [1]. Wu H, et al. SlnM gene overexpression with different promoters on natamycin production in *Streptomyces lydicus* A02. *J Ind Microbiol Biotechnol*. 2014 Jan;41(1):163-72.
- [2]. Eady RA, et al. A pilot trial of natamycin. A topical antifungal agent. *Practitioner*. 1969 Nov;203(217):670-3.

### CAIndexNames:

6,11,28-Trioxatricyclo[22.3.1.05,7]octacos-8,14,16,18,20-pentaene-25-carboxylic acid, 22-[(3-amino-3,6-dideoxy-β-D-mannopyranosyl)oxy]-1,3,26-trihydroxy-12-methyl-10-oxo-, (1R,3S,5R,7R,8E,12R,14E,16E,18E,20E,22R,24S,25R,26S)-

### SMILES:

OC([C@H]1[C@@](C[C@H](/C=C/C=C/C=C/C=C/C[C@@H](C)OC2=O)O[C@@](O[C@H](C)[C@@H](O)[C@@H]3N)([H])[C@H]3O)([H])O[C@](O)(C[C@H](C[C@]4([H])[C@@H](/C=C/2)O4)O)C[C@@H]1O)=O

**Caution: Product has not been fully validated for medical applications. For research use only.**

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