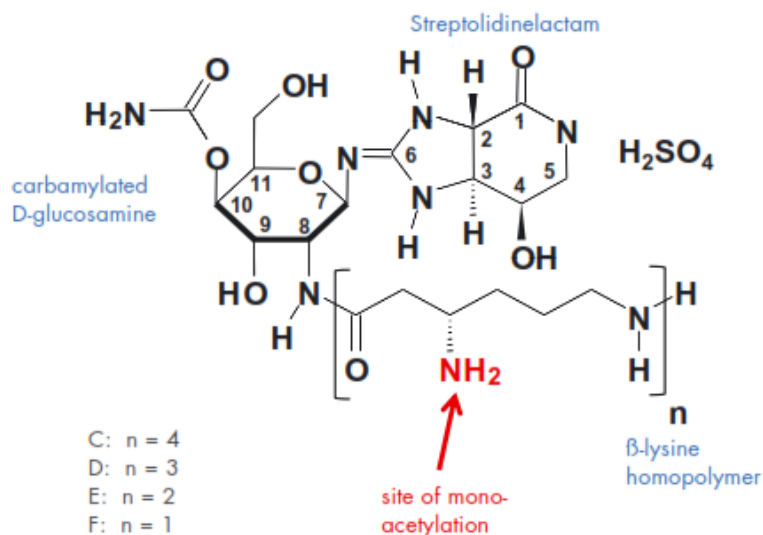


Nourseothricin Sulfate Product Information and Selection Sensitive Organisms (Streptothricin Sulfate, NTC, clonNAT)



- Streptothricin antibiotic for an extraordinarily broad spectrum of unicellular or complex organisms.
- Preferred selection antibiotic for genetically modified
 - Gram-positive and Gram-negative bacteria
 - yeast and filamentous fungi
 - protozoa and microalgae
 - plants ... and many more

Advantages:

- Low or no background: Resistance protein is localized intracellularly and cannot be degraded in the cell culture medium.
- No cross-reactivity with other aminoglycosid antibiotics such as Hygromycin or Geneticin.
- No cross-resistance with therapeutic antibiotics
- Not used in human or veterinary medicine; therefore, no conflict with regulatory requirements
- Long-term stable as powder or solution.
- Highly soluble in water

Storage conditions:

Store desiccated at 4°C.

Stable for ~36 months

Selection:

For selection of recombinant Leishmania strains

Nourseothricin is added to growth medium to a final concentration of 100 µg/ml. See Next Page for full list of sensitive organisms.

List of Nourseothricin Sensitive Organisms

		MIC*	Selection concentration
Gram-negative bacteria	<i>Agrobacterium tumefaciens</i>		100
	<i>Escherichia coli</i>	2–12	50
	<i>Francisella tularensis</i>		50
	<i>Pseudomonas aeruginosa</i>	50	100
Gram-positive bacteria	<i>Bacillus subtilis</i>	5	50
	<i>Enterococcus faecium</i>	8–256	500
	<i>Staphylococcus aureus</i>	2–12	50
Streptomyces	<i>Streptomyces lividans</i>	6	100
Yeast	<i>Candida albicans</i>	200	250–450
	<i>Hansenula polymorpha</i>		100
	<i>Kluyveromyces lactis</i>		50
	<i>Pichia pastoris</i>		100
	<i>Saccharomyces cerevisiae</i>	25	75–100
	<i>Schizosaccharomyces pombe</i>	40	100
	<i>Trichosporon longirostris</i>		100
Other Ascomycota	<i>Acremonium chrysogenum</i>		25
	<i>Aspergillus nidulans</i>		120
	<i>Cryphonectria parasitica</i>		100
	<i>Neurospora crassa</i>		200
	<i>Penicillium chrysogenum</i>		150–200
	<i>Podospora anserina</i>		50
	<i>Sordaria macrospora</i>		50
Basidiomycota	<i>Trichophyton mentagrophytes</i>		50
	<i>Cryptococcus neoformans</i>		100
	<i>Schizophyllum commune</i>	3	8
	<i>Ustilago maydis</i>		75–100
Protozoa	<i>Leishmania tarentolae, major etc.</i>		100
	<i>Phytomonas serpens</i>		100
	<i>Plasmodium falciparum</i>	75**	
	<i>Toxoplasma gondii</i>		500
Microalgae	<i>Phaeodactylum tricorutum</i>		50–250
	<i>Thalassiosira pseudonana</i>		100
Plants	<i>Arabidopsis thaliana</i>	20	50–200
	<i>Daucus carota</i>		100
	<i>Lotus corniculatus</i>		50
	<i>Nicotiana tabacum</i>		100
	<i>Oryza sativa</i>	20	200

* MIC: Minimal inhibitory concentration ** IC50: Concentration inhibiting growth by 50%