

Nourseothricin (also known as clonNAT) is the prime selection antibiotic for recombinant organisms.

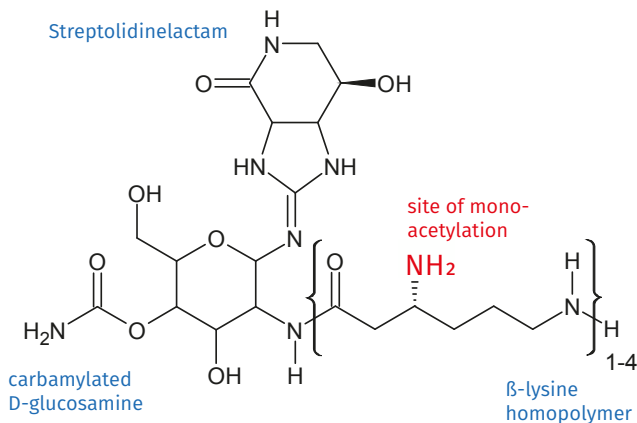


Figure 1

General structure of Nourseothricin, which is a natural mixture of Streptothricins C, D, E and F containing 1, 2, 3 or 4 β-lysine residues, respectively. The resistance protein acetylates the Nourseothricin amino group (red), resulting in its inactivation.

- › Preferred selection antibiotic for genetically modified
 - Mammalian cells
 - Yeast and filamentous fungi
 - Protozoa and microalgae
 - Gram-positive and Gram-negative bacteria
 - Cyanobacteria
 - Plants ... and many more
- › Long-term stable as powder (10 years) and solution (2 years)
- › Highly soluble in water (1g/ml)
- › Low or no background: Resistance protein is localized intracellularly and cannot be degraded in the cell culture medium
- › No cross-reactivity with other antibiotics

Nourseothricin is available as powder or sterile, ready-to-use stock solution

	Cat-No.	Size
Stock Solution, sterile, ready-to-use, 100 mg/ml	AB-101S	1 ml
	AB-101L	5 ml
	AB-101-10ML	10 ml
	AB-101-50ML	50 ml
Powder	AB-102L	1 g
	AB-102XL	5 g
	AB-102-25G	25 g
	AB-102-100G	100 g



Category	Species/cell line	Selection concentration [$\mu\text{g/ml}$]
Mammalian cells	HMEC	>50
	HEK293T	>50
	BT549	>50
	U2OS	>50
Yeast	<i>Ashbya gossypii</i>	50-200
	<i>Candida sp.</i>	100-450
	<i>Hansenula sp.</i>	50-100
	<i>Lipomyces starkeyi</i>	30
	<i>Pichia sp.</i>	50-200
	<i>Saccharomyces cerevisiae</i>	50-200
	<i>Schizosaccharomyces sp.</i>	50-100
	<i>Zygosaccharomyces sp.</i>	5-100
Other Ascomycota	<i>Acremonium chrysogenum</i>	25
	<i>Aspergillus sp.</i>	20-120
	<i>Cochliobolus sp.</i>	60-300
	<i>Colletotrichum sp.</i>	100-400
	<i>Cryphonectria parasitica</i>	100
	<i>Fusarium sp.</i>	25-200
	<i>Neurospora crassa</i>	20-200
	<i>Penicillium sp.</i>	40-200
	<i>Rhynchosporium commune</i>	4
Basidiomycota	<i>Cryptococcus sp.</i>	100-200
	<i>Rhodospidium kratochvilovae</i>	200
	<i>Schizophyllum commune</i>	8-20
	<i>Ustilago maydis</i>	75-150
	<i>Xanthophyllum dendrorhous</i>	30
Protozoa	<i>Crithidia bombi</i>	200
	<i>Leptomonas seymouri</i>	250
	<i>Leishmania sp.</i>	25-125
	<i>Phytomonas serpens</i>	100
	<i>Plasmodium falciparum</i>	>150
	<i>Toxoplasma gondii</i>	500
Microalgae	<i>Trypanosoma sp.</i>	1-200
	<i>Amphora coffeaeformis</i>	300
	<i>Chaetoceros sp.</i>	100-500
	<i>Ostreococcus tauri</i>	1500
	<i>Phaeodactylum tricornutum</i>	50-250
Gram-negative bacteria	<i>Agrobacterium tumefaciens</i>	100
	<i>Escherichia coli</i>	50
	<i>Francisella tularensis</i>	50
	<i>Pseudomonas aeruginosa</i>	100
Gram-positive bacteria	<i>Bacillus subtilis</i>	50
	<i>Enterococcus faecium</i>	500
	<i>Mycobacterium smegmatis</i>	25
	<i>Staphylococcus aureus</i>	50
Streptomycetes	<i>Streptomyces lividans</i>	100
Cyanobacteria	<i>Synechocystis sp. PCC 6803</i>	50
Plants	<i>Arabidopsis thaliana</i>	50-200
	<i>Daucus carota</i>	100
	<i>Lotus corniculatus</i>	50
	<i>Nicotiana tabacum</i>	100
	<i>Oryza sativa</i>	200

Nourseothricin is applicable to more than 100 organisms & cell lines

Find more organisms and cell lines online

