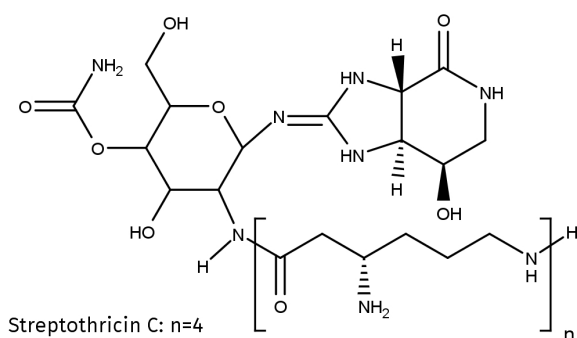




## Nourseothricin - Powder

NTC or clonNAT  
powder (non-sterile)

Cat. No.	Amount
AB-102L	1 g
AB-102XL	5 g
AB-102-25G	25 g
AB-102-100G	100 g



Streptothricin C: n=4  
Streptothricin D: n=3  
Streptothricin E: n=2  
Streptothricin F: n=1

**For research use only!** Not intended for human or animal diagnostic or therapeutic uses.

**Shipping:** Shipped at ambient temperature

**Storage Conditions:** Store at 4 °C

**Shelf Life:** 36 months

**Molecular Formula:** C<sub>19</sub>H<sub>34</sub>N<sub>8</sub>O<sub>8</sub> · H<sub>2</sub>SO<sub>4</sub> (Streptothricin F)

**Molecular Weight:** 600.6 g/mol (Streptothricin F)

**CAS#:** 96736-11-7

**Form:** Non-sterile beige powder

**Solubility:** 1000 g/l in water

### Description:

Nourseothricin is a mixture of Streptothricins C, D, E and F and can be used as selection antibiotic for a broad spectrum of pro- and eukaryotic organisms (i.e. Gram-positive and Gram-negative bacteria, yeast, filamentous fungi, protozoa, microalgae, plants and many more).

Selection of recombinant strains is based on inactivation of Nourseothricin by mono-acetylation of the β-amino group of the β-lysine residue by Nourseothricin N-acetyltransferase, the product of the *sat1* or *nat1* genes.

### Selection:

For selection of recombinant *Leishmania* strains Nourseothricin (NTC) is added to growth medium to a final concentration of 100 µg/ml.

For selection of other species please refer to the product page.

### Selected References:

- [1] Goldstein *et al.* (1999) Three New Dominant Drug Resistance Cassettes for Gene Disruption in *Saccharomyces cerevisiae*. *Yeast* **15**: 1541
- [2] Kojic *et al.* (2000) Shuttle vectors for genetic manipulations in *Ustilago maydis*. *Can. J. Microbiology* **46**: 333
- [3] Werner *et al.* (2001) Aminoglycoside-Streptothricin Resistance Gene Cluster *aadE-sat4-aphA-3* Disseminated among multiresistant Isolates of *Enterococcus faecium*. *Antimicrob. Agents Chemotherapy* **45**: 3267
- [4] Hoff *et al.* (2009) Homologous recombination in the antibiotic producer *Penicillium chrysogenum*: strain ΔPcku70 shows up-regulation of genes from the HOG pathway. *Appl. Microbiol. Biotechnol.* **85**:1081
- [5] Kochupurakkal & Iglehart (2013) Nourseothricin N-Acetyl Transferase: A Positive Selection Marker for Mammalian Cells. *PLoS One* **8**: e68509
- [6] Ramos *et al.* (2013) Functional genomics tools to decipher the pathogenicity mechanisms of the necrotrophic fungus *Plectosphaerella cucumerina* in *Arabidopsis thaliana*. *Molecular Plant Pathology* **14**: 44
- [7] Schubert *et al.* (2013) Agrobacterium-mediated transformation of the white-rot fungus *Physisporinus vitreus*. *J. Microbiol. Meth.* **95**: 251
- [8] Buhmann *et al.* (2014) A Tyrosine-Rich Cell Surface Protein in the Diatom *Amphora coffeaeformis* Identified through Transcriptome Analysis and Genetic Transformation. *PLoS one* **9**: e110369
- [9] Kraeva *et al.* (2015) *Leptomonas seymouri*: Adaptations to the Dixenous Life Cycle Analyzed by Sequencing, Transcriptome Profiling and Co-infection with *Leishmania donovani*. *PLoS Pathogens* **11**: e1005127
- [10] Paschke *et al.* (2018) Rapid and efficient genetic engineering of both wild type and axenic strains of *Dictyostelium discoideum*. *PLoS One* **13**: e0196809