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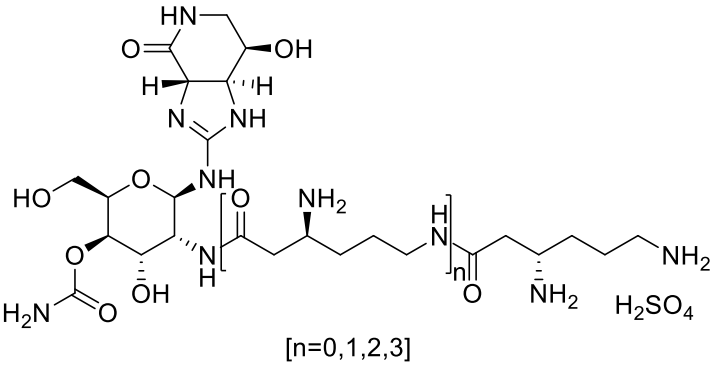
PRODUCT DATA SHEET

Nourseothricin sulfate

Code No.: **BIA-N2568**

Pack sizes: **1 mg, 5 mg**



Synonyms :

Specifications

CAS #	:	**96736-11-7**
Molecular Formula	:	**$C_{50}H_{92}N_{20}O_{18}.H_2SO_4$**
Molecular Weight	:	**1359.47**
Source	:	***Streptomyces noursei***
Appearance	:	**White solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol or DMSO**

Application Notes

Nourseothricin sulfate is a complex of streptothricins C, D, E and F, isolated from Streptomyces noursei. Nourseothricin is structurally unrelated to other aminoglycosides with a glucosamine bearing a carbamoyl at the 4-hydroxy position linked to an atypical amino acid, streptolidine, via a β-glycoside linkage. The members of the complex differ in the length of the peptide side chain containing 1, 2, 3 or 4 ß-lysine residues, respectively. Nourseothricin is active against many prokaryotic and selected eukaryotic species, including yeasts, fungi, protozoa, insects and plants. Nourseothricin is inactivated by acetylation of the β-amino group of the β-lysine residue, conferred by the NAT-1 gene.

References

1. Streptomyces antibiotics. VI. Isolation of streptothricin. Peck R.L. et al. J Am Chem Soc. 1946, 68, 772.
2. Total chemical structure of streptothricin. Kusumoto S. et al. J Antibiot. 1982, 35, 925.
3. Bacterial resistance to streptothricins. Haupt I. and Thrum H. J Basic Microbiol. 1985, 25, 335.
4. A novel enzyme conferring streptothricin resistance alters the toxicity of streptothricin D from broad-spectrum to bacteria-specific. Hamano Y. et al. J Biol Chem. 2006, 281,16842.

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Building C, 28-54 Percival Road, Smithfield, NSW 2164, AUSTRALIA

Tel: 61 2 9757 4515 Fax: 61 2 9757 2586 Web: www.bioaustralis.com Email: info@bioaustralis.com