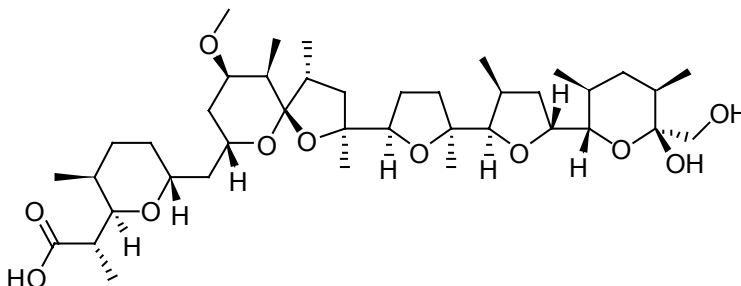


## Nigericin

Code: **BIA-N1228**

Pack sizes: **5 mg, 25 mg**



Synonyms : **Polyetherin A, Azalomycin M, Helixin C, Antiotic K 178, Antibiotic X 464, Pandavir**

### Specifications

CAS # : **28643-24-7**  
Molecular Formula : **C<sub>40</sub>H<sub>68</sub>O<sub>11</sub>**  
Molecular Weight : **724.9**  
Source : ***Streptomyces hygroscopicus***  
Appearance : **White powder**  
Purity : **> 98%**  
Long Term Storage : **- 20°C**  
Solubility : **Soluble in DMSO, partially soluble in methanol and methanol, poor water solubility**

### Application Notes

Nigericin is a polyether antibiotic produced by *Streptomyces* isolated in the 1950s, notably *S. hygroscopicus*. Its complex structure was finally elucidated in 1968. Nigericin is an ionophore, possessing a very high affinity for monovalent cations such as Na<sup>+</sup> and K<sup>+</sup>. Nigericin disrupts membrane potential and Golgi apparatus in mitochondria. Although nigericin can be isolated as the free acid (under acidic conditions), like most ionophores it is extracted into organic solvents and is most conveniently isolated as a salt. *In vitro*, nigericin has a broad biological profile activity against Gram positive bacteria, fungi, tumor cell lines and some viruses, including HIV. Nigericin is the most common member of the polyether class which are common false positives in *in vitro* screening bioassays using crude microbial extracts. They are thus important standards for dereplication.

### References

1. Nigericin, a new crystalline antibiotic from an unidentified *streptomyces*. Harned R.L. et al., *Antibiot. Chemother.* 1951, 1, 594.
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3. Nigericin-induced Na<sup>+</sup>/H<sup>+</sup> and K<sup>+</sup>/H<sup>+</sup> exchange in synaptosomes: effect on [3H]GABA release. Rodriguez R. & Sitges M., *Neurochem. Res.* 1996, 21, 889.
4. Nigericin inhibits accumulation of the steroidogenic acute regulatory protein but not steroidogenesis. King S.R. et al., *Mol. Cell. Endocrinol.* 2000, 166, 147.
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