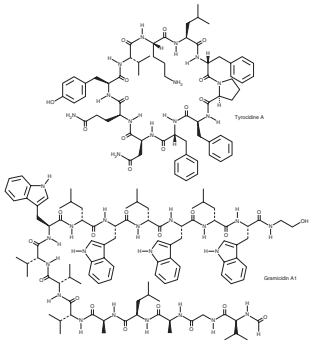
PRODUCT INFORMATION

Tyrothricin

Item No. 22177



CAS Registry No.:	1404-88-2
MF:	$C_{66}H_{87}N_{13}O_{13}$ (for Tyrocidine A)
FW:	1,270.5
Composite Purity:	≥95% compostie purity (based on 80% tyrocidine and 20% gramicidin complexes)
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Tyrothricin is supplied as a solid. A stock solution may be made by dissolving the tyrothricin in the solvent of choice, which should be purged with an inert gas. Tyrothricin is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

Description

Tyrothricin is a polypeptide antibiotic mixture produced by *B. brevis*.[1,2] Tyrothricin is a mixture of tyrocidine and gramicidin that has rapid *in vitro* bactericidal activity against *T. microdentium*, *T. macrodentium*, *T. vincentii*, *T. buccalis*, *T. mucosum*, *T. vaginalis*, *T. cruzi*, and *L. tropica*.[2] Preclinical studies demonstrate that intravenous use of tyrothricin leads to hemolysis-induced lethality (LD_{50}s = 0.4 and 0.3 mg/kg, in dogs and mice, respectively) and damages liver, kidney, and olfactory tissues. Formulations containing tyrothricin are used topically to treat bacterial skin infections.[1,2]

References

1. Dubos, R.J. and Hotchkiss, R.D. The production of bactericidal substances by aerobic sporulating bacilli. *J. Exp. Med.* **73(5)**, 629-640 (1941).
2. Lask, S.A. Tyrothricin as an antibiotic. *Arch. Surg.* **56(4)**, 475-483 (1948).

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