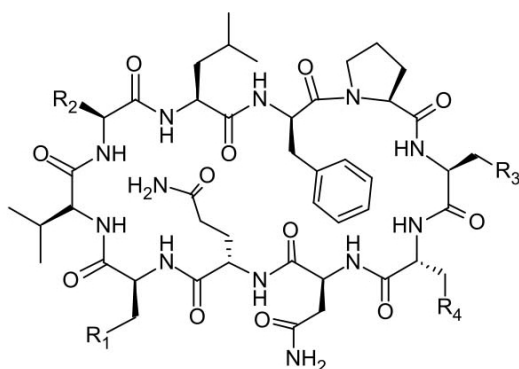


Tyrocidine complex

Code No.: BIA-T1609

Pack sizes.: 5mg, 25mg



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>
Tyrocidine A		-CH <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> NH <sub>2</sub>		
Tyrocidine A1		-CH <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> NH <sub>2</sub>		
Tyrocidine B		-CH <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> NH <sub>2</sub>		
Tyrocidine B1		-CH <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> NH <sub>2</sub>		
Tyrocidine C		-CH <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> NH <sub>2</sub>		
Tyrocidine C1		-CH <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> NH <sub>2</sub>		
Tyrocidine D		-CH <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> NH <sub>2</sub>		
Tyrocidine E		-CH <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> NH <sub>2</sub>		

Synonyms:

-

## Specifications

CAS #	: <b>8011-61-8</b>
Molecular Formula	: <b>C<sub>66</sub>H<sub>87</sub>N<sub>13</sub>O<sub>13</sub>(forTyrocidineA)</b>
Molecular Weight	: <b>1269.7</b>
Source	: -
Appearance	: <b>White solid</b>
Purity	: <b>&gt;95% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in ethanol, methanol, DMF or DMSO.</b>

## Application Notes

Tyrocidine complex is a family of eight cationic cyclic decapeptides produced by *Bacillus brevis*, first reported by

Dubos in 1941. Tyrocidines exhibit broad antibiotic activity against Gram positive and negative bacteria and are the major component of the tyrothricin complex which is used for treatment of topical infections. Although the mechanism of action of tyrocidines is not fully understood, they are known to act by disturbing lipid bilayers of the bacterial cell membrane.

## References

1. Studies on a bacterial agent extracted from a soil bacillus. Dubos R.J. J. Exp. Med. 1939, 70, 11.
2. The amino-acid composition of tyrocidine. Gordon A.H. et al., Biochem. J. 1943, 37, 313.
3. The lytic action of tyrothricin and its derivatives on *Staphylococcus aureus*. Fong J. & Krueger A.P. J. Gen. Physiol. 1950, 33, 311.