

NOTES

A NOMENCLATURE PROPOSAL FOR THE OCTAPEPTIN ANTIBIOTICS

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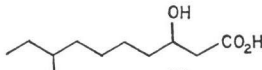
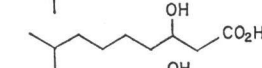
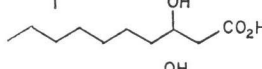
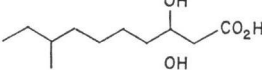
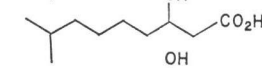
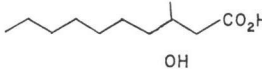
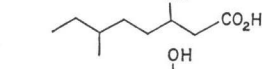
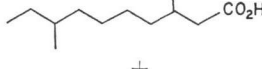
Since the EM49 antibiotics were first described in 1973¹⁾, three chemically related antibiotics, 333-25²⁾, Bu-1880³⁾, and Y-8495⁴⁾, have been reported by other laboratories. These antibiotics, all octapeptides acylated with a fatty acid residue, differ from each other with respect to the ratio and the chirality of the constituent amino acids and also in the nature of the fatty acid

substituent. Most, if not all, are broad-spectrum antibiotics with good activity against *Pseudo-monas aeruginosa*. Moreover, the EM49 antibiotics have been reported to have moderate activity against yeasts and filamentous fungi.

It is desirable to select a class name for the antibiotic group with provisions for identifying individual members. Accordingly, octapeptin is proposed as the class name, with appropriate suffixes to designate the individual antibiotics. Each of the peptide variants is designated by a different capital letter in order of discovery. Similarly, the fatty acid residues are differentiated, when necessary, by subscript numbers following the letter.

In Table 1 are listed all the reported members of this class of antibiotic, the name designated and, where known, the structural elements of each of the member antibiotics^{5,6,7)}. We recommend that this nomenclature scheme be adopted and that as new class members are dis-

Table 1. Octapeptin antibiotics: names and hydrolysis products

Name	Synonym	Dab		Leu		Phe		Fatty acids
		D	L	D	L	D	L	
Octapeptin A ₁	EM 49β	1	4	1	2	0	0	
Octapeptin A ₂	EM 49α	1	4	1	2	0	0	
Octapeptin A ₃		1	4	1	2	0	0	
Octapeptin B ₁	EM 49δ	1	4	1	1	0	1	
Octapeptin B ₂	EM 49γ	1	4	1	1	0	1	
Octapeptin B ₃		1	4	1	1	0	1	
Octapeptin C ₁	333-25	1	4	0	2	1	0	
Octapeptin -*	Bu-1880	5		2		1		
Octapeptin -*	Y-8495	+		+		+		+

* Although Bu-1880 and Y-8495 are clearly members of the octapeptin class, no nomenclature assignments should be made until their respective peptide and fatty acids have been shown to be different from those already reported.

covered, each be assigned a name following this scheme.

References

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