

## A 3 0 6 Complete NMR Signal Assignment of Palytoxin and *N*-Acetylpalytoxin

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Palytoxin is the second largest-sized natural product that does not contain repeating units such as amino acids or monosaccharides. The molecular formula of palytoxin is  $C_{129}H_{223}N_3O_{54}$  and the molecule contains 64 chiral centers. We assigned all hydrogen and carbon NMR signals of palytoxin and *N*-acetylpalytoxin using multidimensional Fourier transform techniques. Although the complete assignment was difficult due to the spectral complexity, advances in NMR spectrometry and techniques such as gradient enhancement and 3D Fourier transform have enabled us to completely assign the  $^1H$  and  $^{13}C$  signals of palytoxin and also the  $^{15}N$  signals of *N*-acetylpalytoxin. This NMR data will contribute to further studies of the structure and biosynthetic pathways of the palytoxin family compounds, including conformational and dynamic properties of the molecule.

