

Polyacrylate-peptide antigen conjugate as a single-dose oral vaccine against Group A Streptococcus

Mohammad Omer Faruck¹, Lili Zhao¹, Waleed M. Hussein^{1,2}, Zeinab G. Khalil³, Robert J. Capon³, Mariusz Skwarczynski^{1,*}, Istvan Toth^{1,3,4*}

¹ School of Chemistry and Molecular Biosciences, The University of Queensland, St Lucia, Brisbane, QLD 4072, Australia;

² Pharmaceutical Organic Chemistry Department, Faculty of Pharmacy, Helwan University, Helwan, Egypt;

³ Institute for Molecular Bioscience, The University of Queensland, St. Lucia, QLD 4072, Australia;

⁴ School of Pharmacy, The University of Queensland, Woolloongabba, Brisbane, QLD 4102, Australia;

* Correspondence: e-mail: m.skwarczynski@uq.edu.au, i.toth@uq.edu.au

Table 1. Element microanalysis for PMA and PMA-P-J8.

		N %	C %	N/C ratio
PMA	Theoretical Value	1.53	55.00	0.028
		10.27	49.81	0.206
PMA-P-J8	Experimental Value	10.19	49.80	0.204

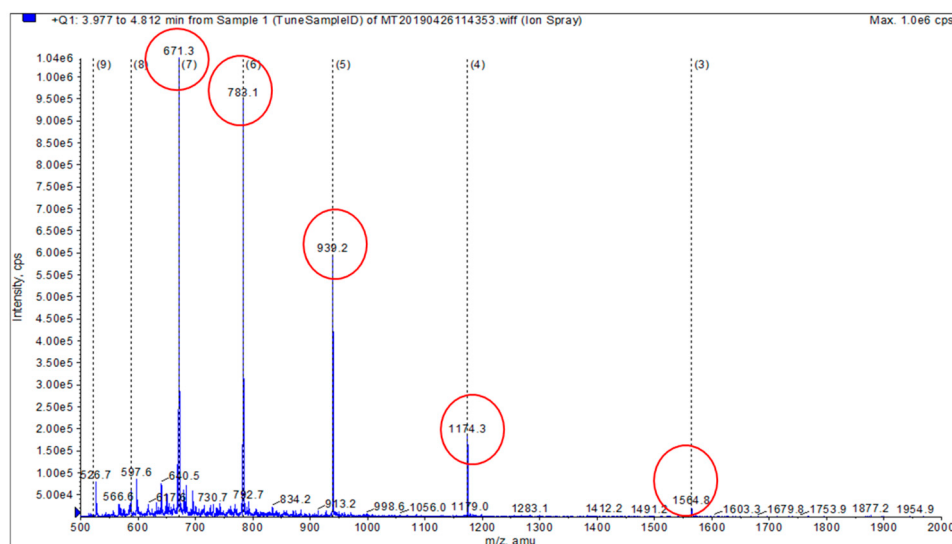


Figure 1. ESI-MS Spectrum of 4-petynoyl derivative of PADRE-J8 Peptide.

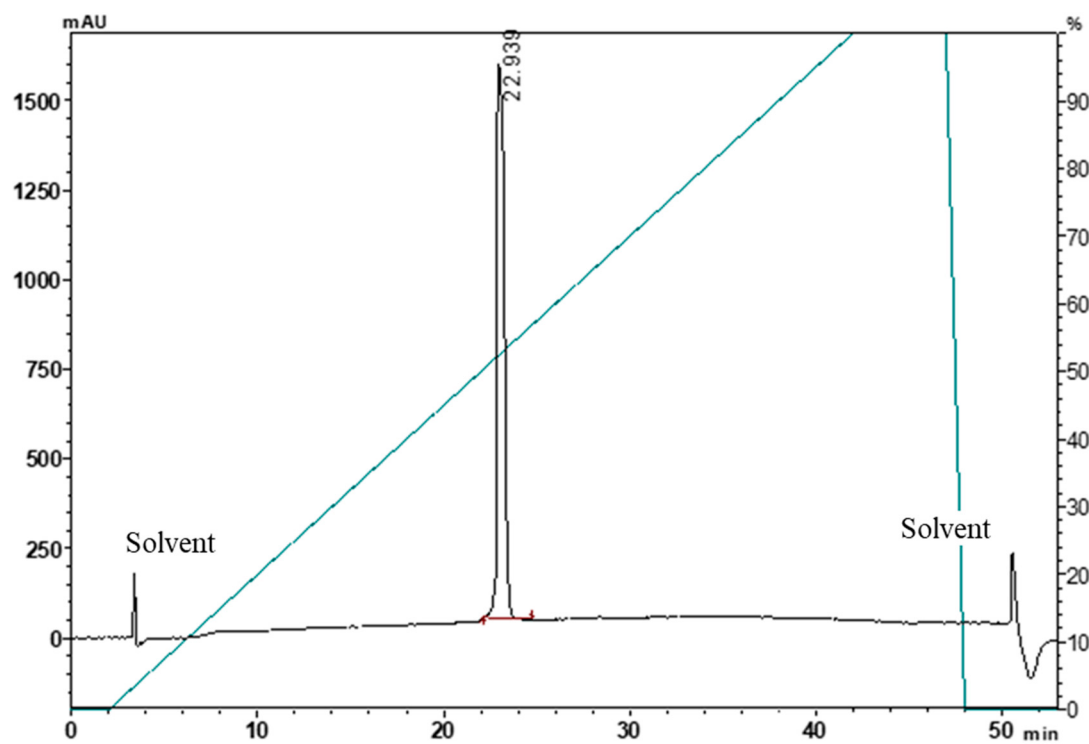


Figure 2. Analytical RP-HPLC chromatogram image of PADRE-J8 with alkyne moiety, $R_t=22.9$ min.

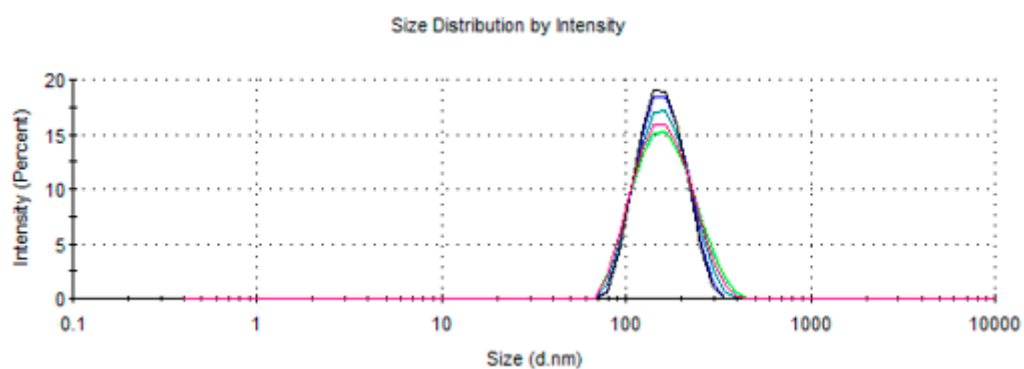


Figure 3. DLS spectra of particle PMA-P-J8 size distributions by intensity.