Supplementary Material for Organic & Biomolecular Chemistry This journal is © The Royal Society of Chemistry 2003

## Supplementary data

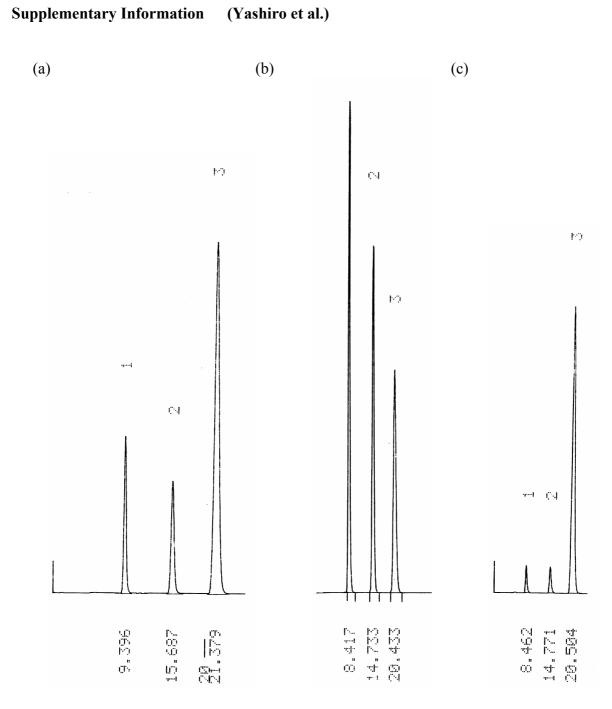


Fig. 6 Typical HPLC charts. Peak 1, Ser; peak 2, Gly; peak 3 Gly-Ser.

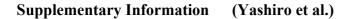
(a) Standard sample; a mixture of Gly (0.5 mM), Ser (0.5 mM) and Gly-Ser (10 mM).

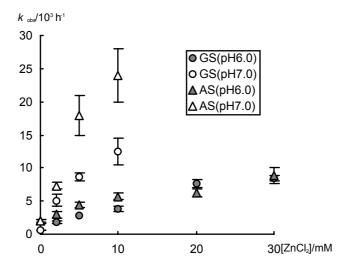
(b) After the 24 h-reaction of Gly-Ser (10 mM) with  $ZnCl_2$  (10 mM) at pH 7.0 (HEPES 0.1 M) and 50 °C.

(c) After the 24 h-reaction of Gly-Ser (10 mM) without metal salt at pH 7.0 (HEPES 0.1 M) and 50  $^{\circ}$ C.

Elution times differed slightly depending on the eluent. Therefore, the elution times were reconfirmed by injecting standard samples, whenever the eluent was altered.

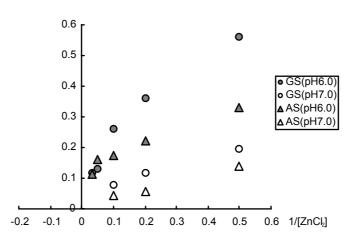
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**Fig.** 7 Effect of concentration of  $ZnCl_2$  on the rate constant for the dipeptide (10 mM) hydrolysis at 50 °C and pH 6.0 or 7.0. The rate constant at the  $ZnCl_2$ -concentration greater than 10 mM at pH 7.0, and at pH greater than 7.0 with  $[ZnCl_2] = 10$  mM could not be obtained because of the solubility of  $ZnCl_2$ .

Each plot of the rate constant as a function of the concentration of  $ZnCl_2$  showed a saturation curve. The  $1/[V_0]$  vs  $1/[ZnCl_2]$  plots (shown below) were not linear, indicating that the reactions do not obey standard Michaelis-Menten type kinetics.



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