Figure 1

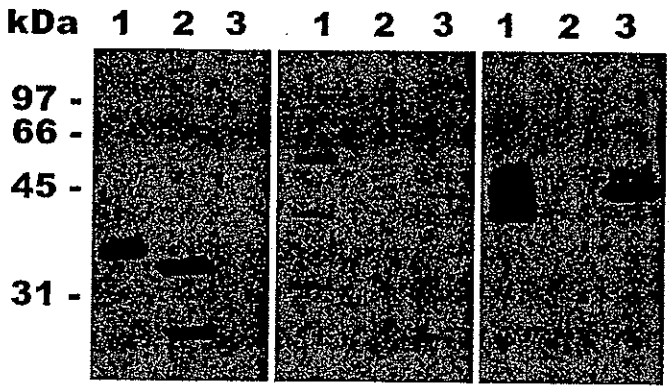


Figure 2

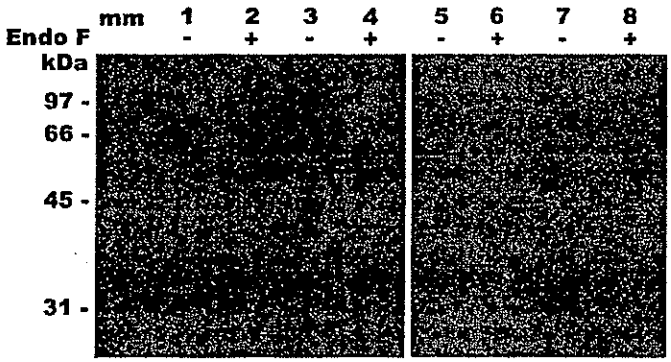


Figure 3

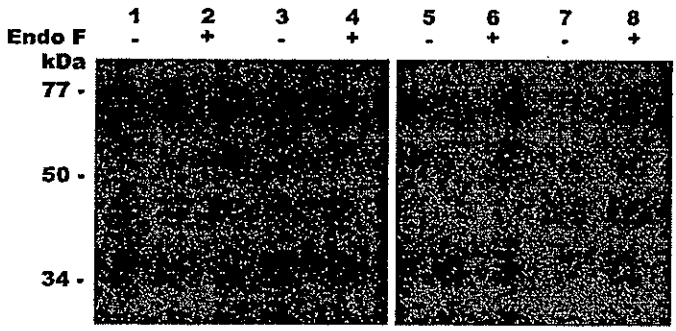
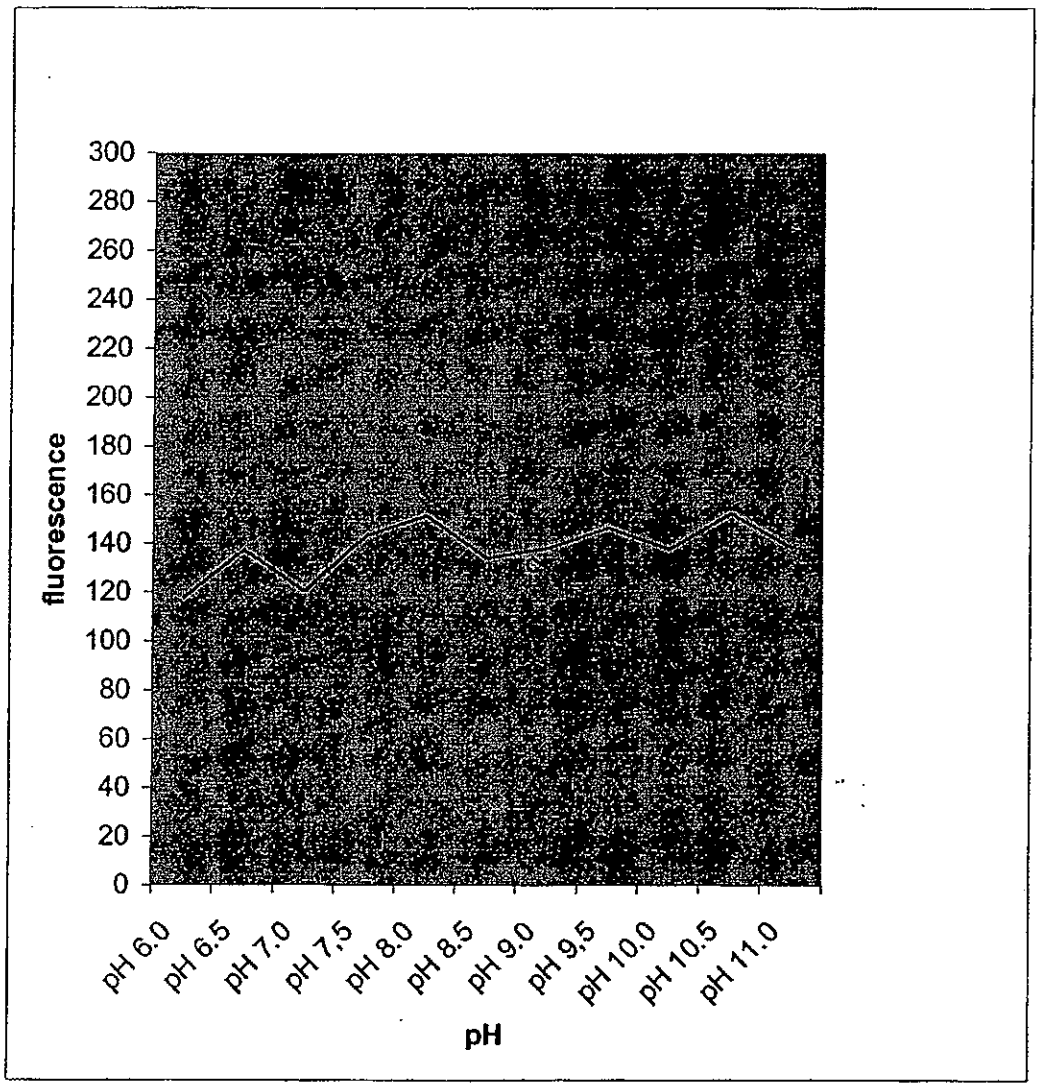


Figure 4:Determination of *T.rubrum* AMPP activity at different pHs using Lys(Abz)-Pro-Pro-pNA as substrate.



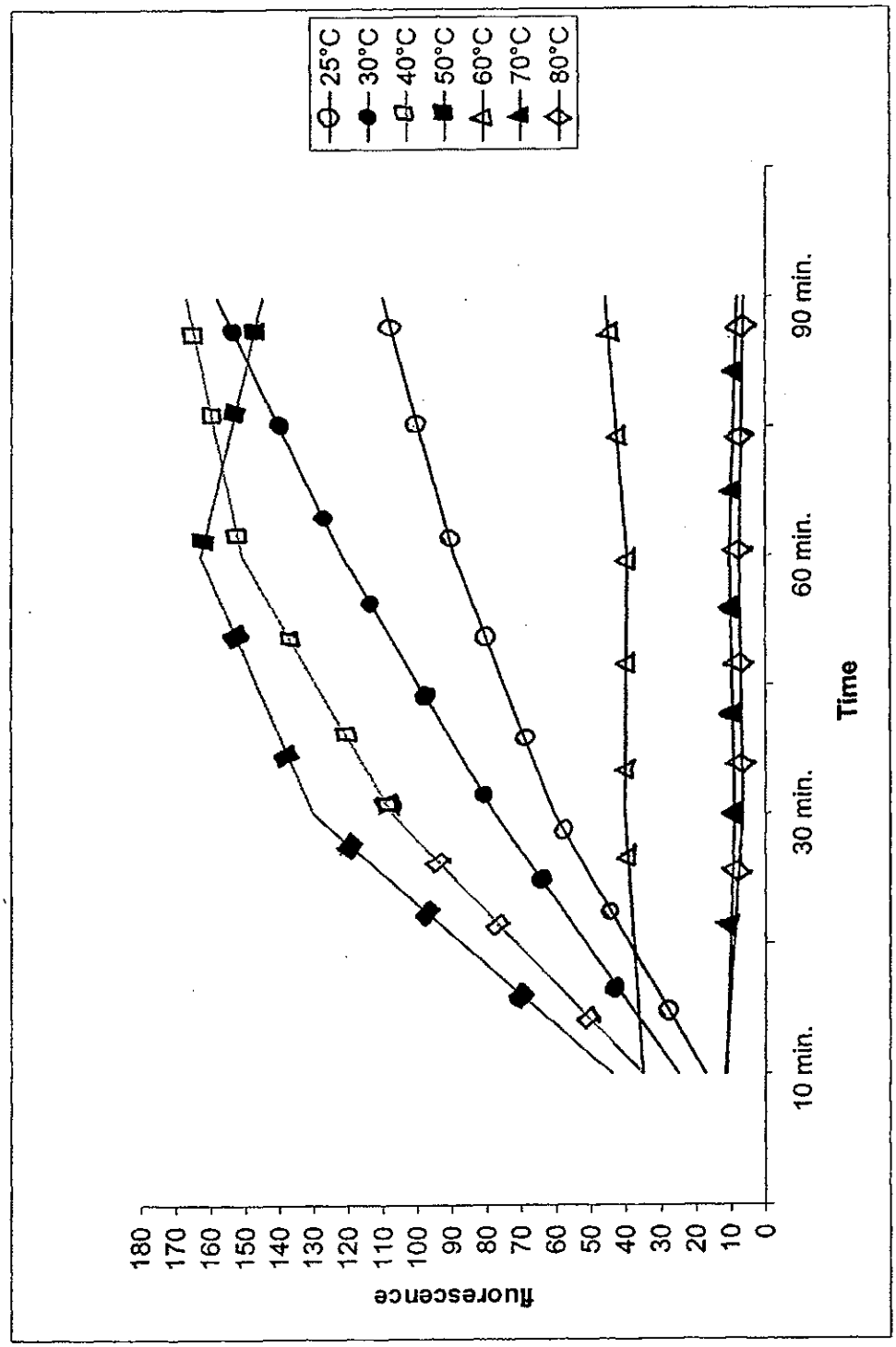


Figure 5: Enzymatic activity of *T. rubrum* AMPP at different temperatures.

Figure 6: Digestion of gliadin 14mer without (A) and with (B) ruLAP2 over 4h at 37°C with a E/S ration of 1/50 (w:w).

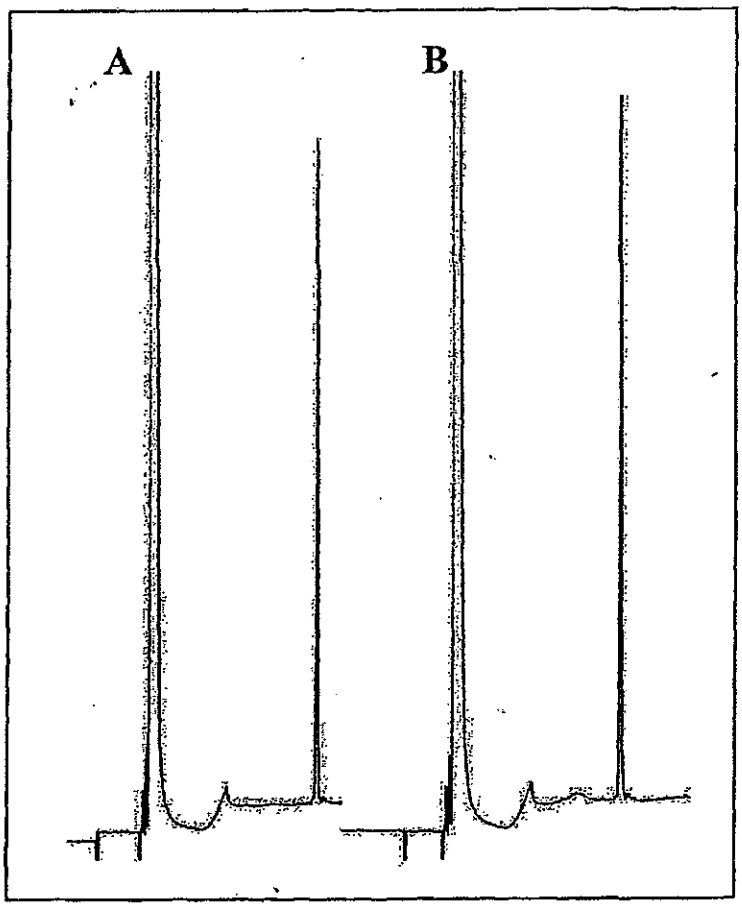


Figure 7: Digestion of gliadin 14mer over 4h with ruDPPIV alone at an E/S ratio of 1/25 (w:w) (A) and with a mixture of ruLAP2 and DPPIV at the same ratio of 1/50 (w:w) (B).

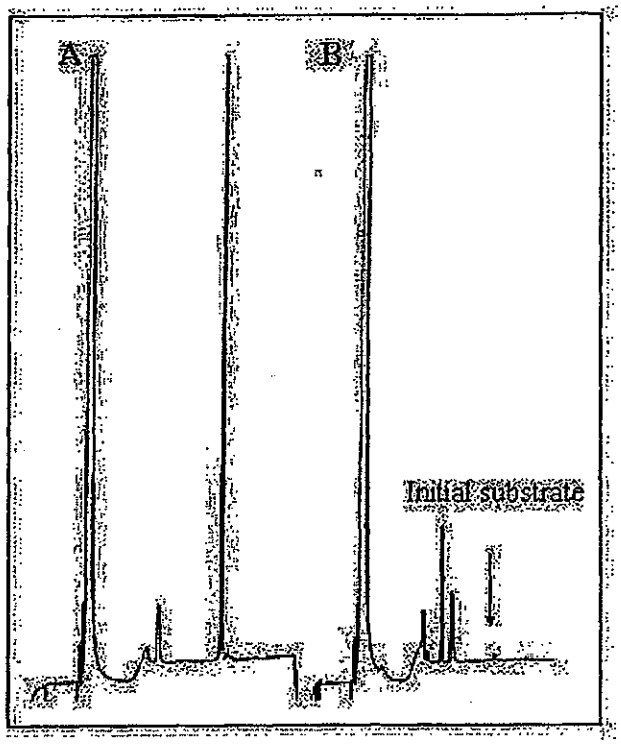


Figure 8: Digestion of gliadin 33mer without (A) and with (B) ruDPPIV over 4h at 37°C with a E/S ration of 1/50 (w:w).

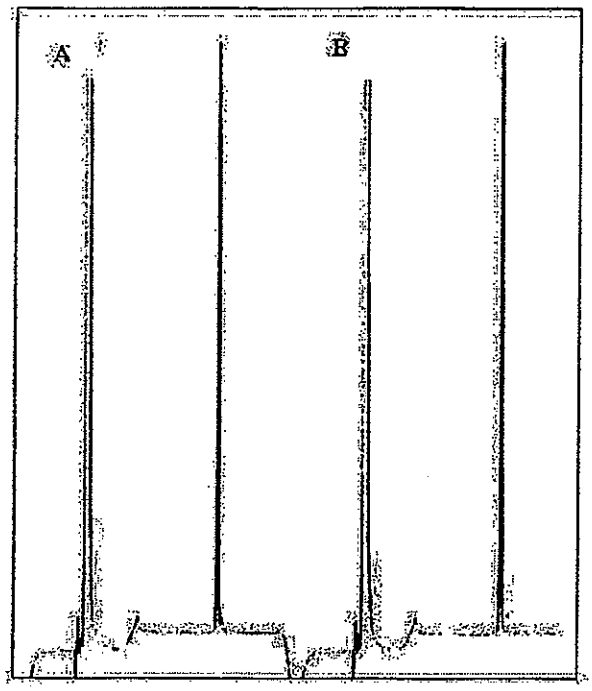


Figure 9 : Digestion of gliadin 33mer at 37°C over 4h with a mixture of ruLAP2 and ruDPPIV at an E/S ratio of 1 :50 (w:w) each.

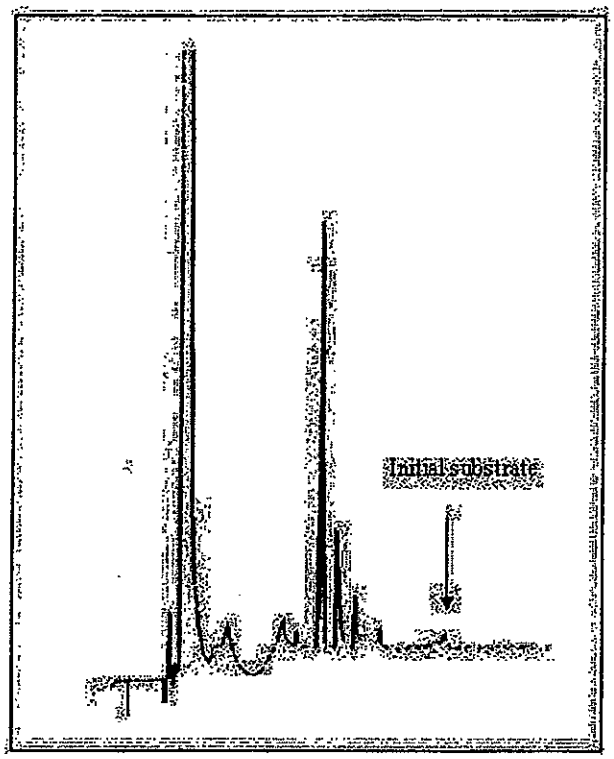
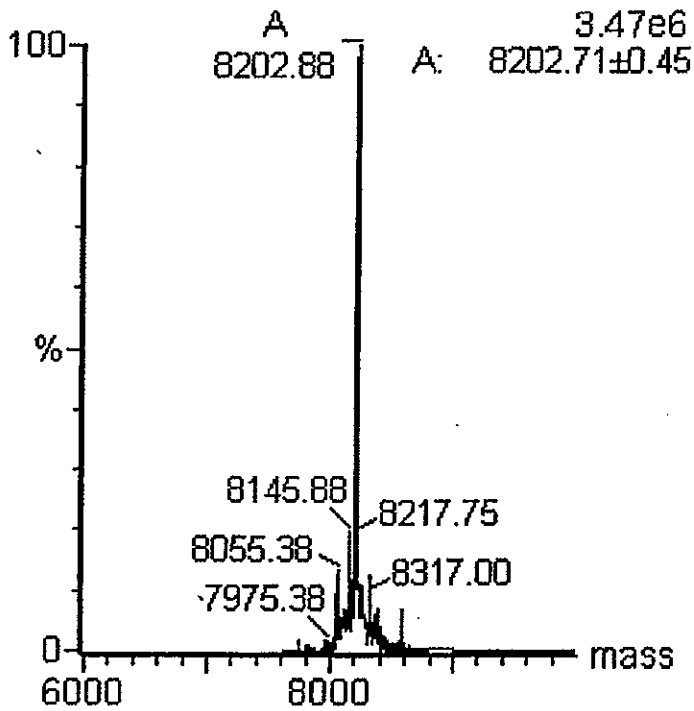


Figure 10: Mass spectrum of Gly-Ser-proNPY (calculated molecular mass at 8203.12 Da) before (**A**) and after digestion (**B**) with ruLAP2, which results in the cleavage of Gly-Ser (-144.1 Da)

10-A



10-B

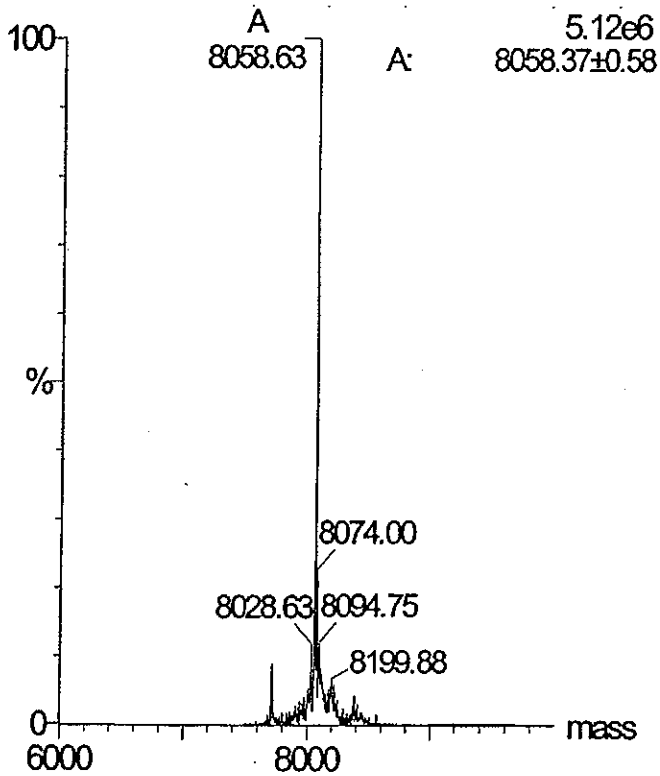

A
8058.63
A:
5.12e6
8058.37±0.58
100
%
0
8074.00
8028.63
8094.75
8199.88
6000
8000
mass

Figure 11: Mass spectrum of Ala-proNPY (**A**, calculated molecular mass at 8130.0 uma) and of the digestion product (**B**) with ruLAP2 .

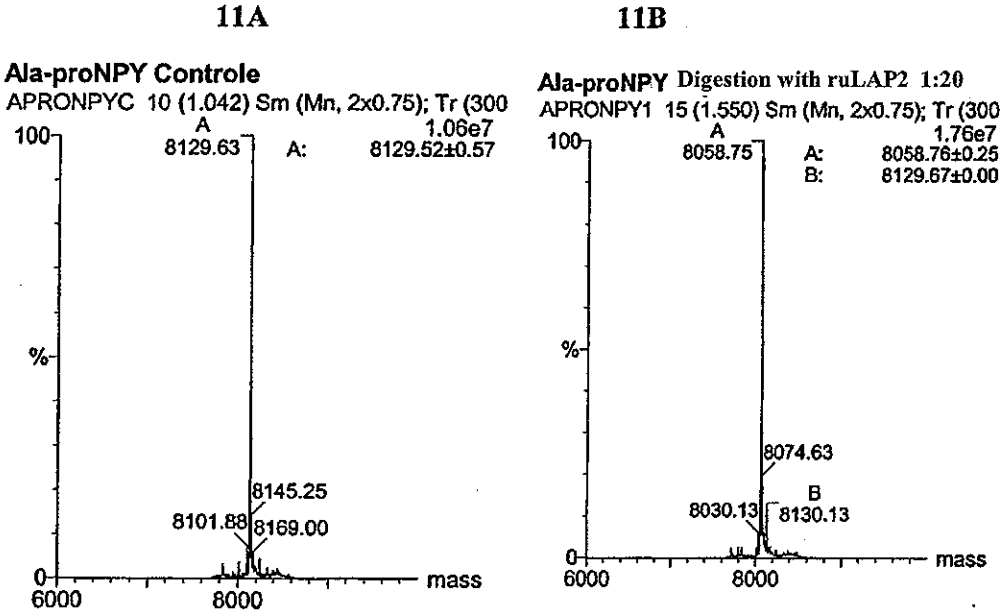
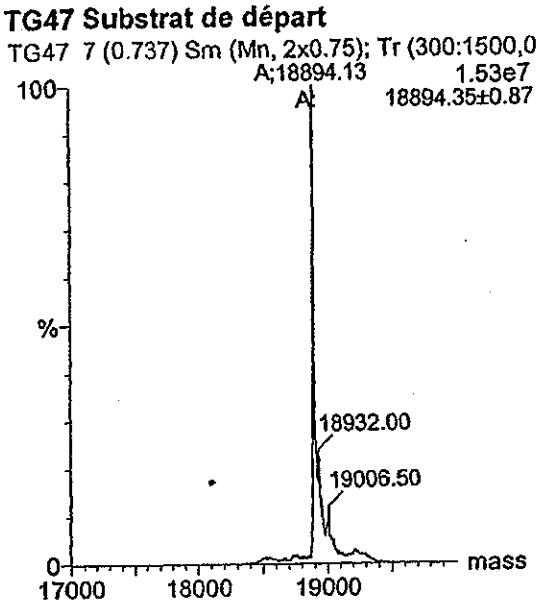
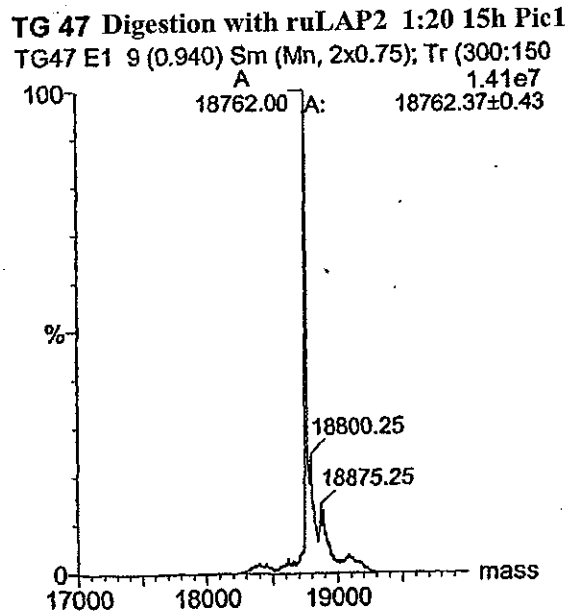


Figure 12: Mass spectrum of (A) TG47 (calculated molecular mass of 18894.9 uma) and of the digestion product with ruLAP2 (B),which results in the removal of the N-terminal methionine.

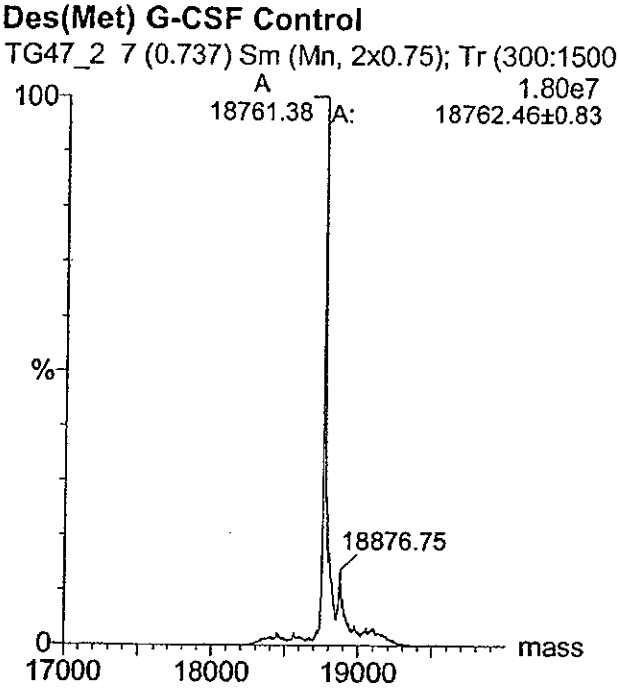


12A

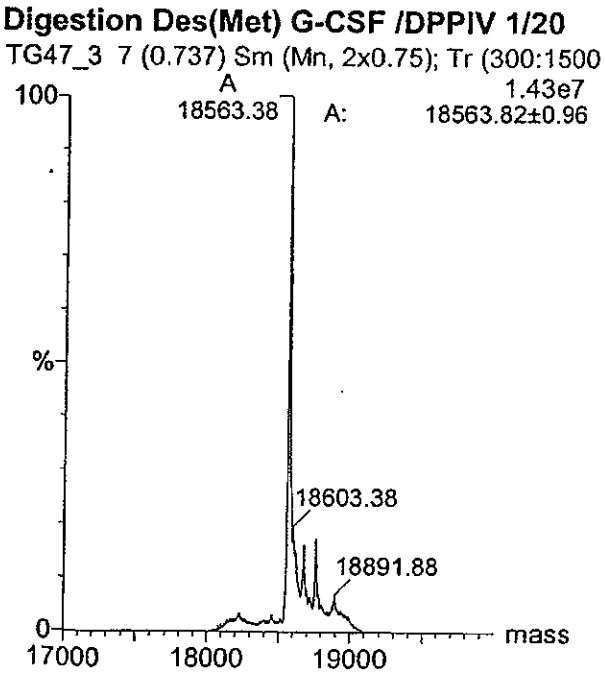


12B

Figure 13 : Characterisation by ESI-MS of the digestion product of desMet-G-CSF without (A) or with (B) ruDPPIV.



13A



13B

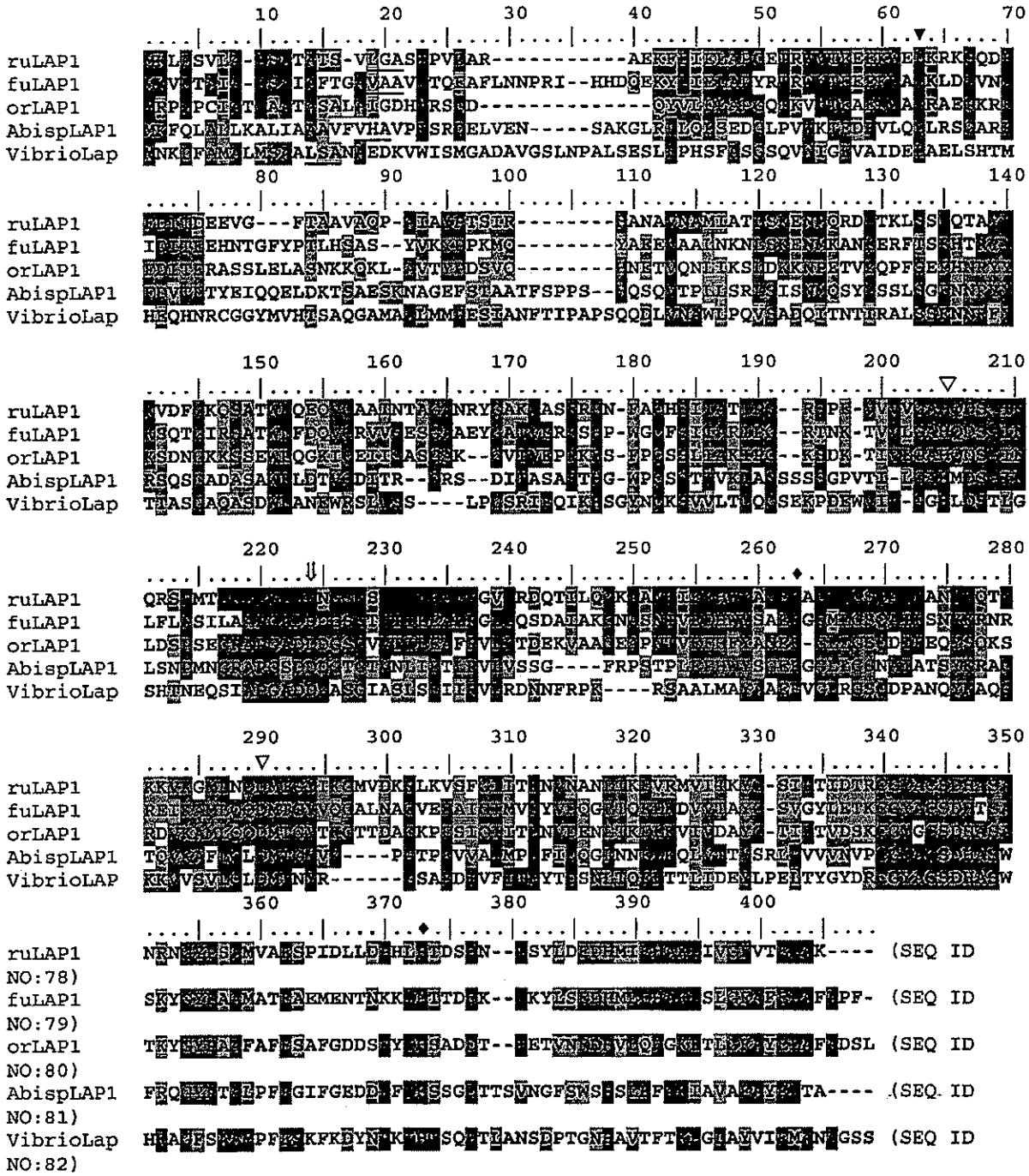

ruLAP1
fuLAP1
orLAP1
AbispLAP1
VibrioLap
VibrioLAP
(SEQ ID NO:78)
(SEQ ID NO:79)
(SEQ ID NO:80)
(SEQ ID NO:81)
(SEQ ID NO:82)

FIG. 14

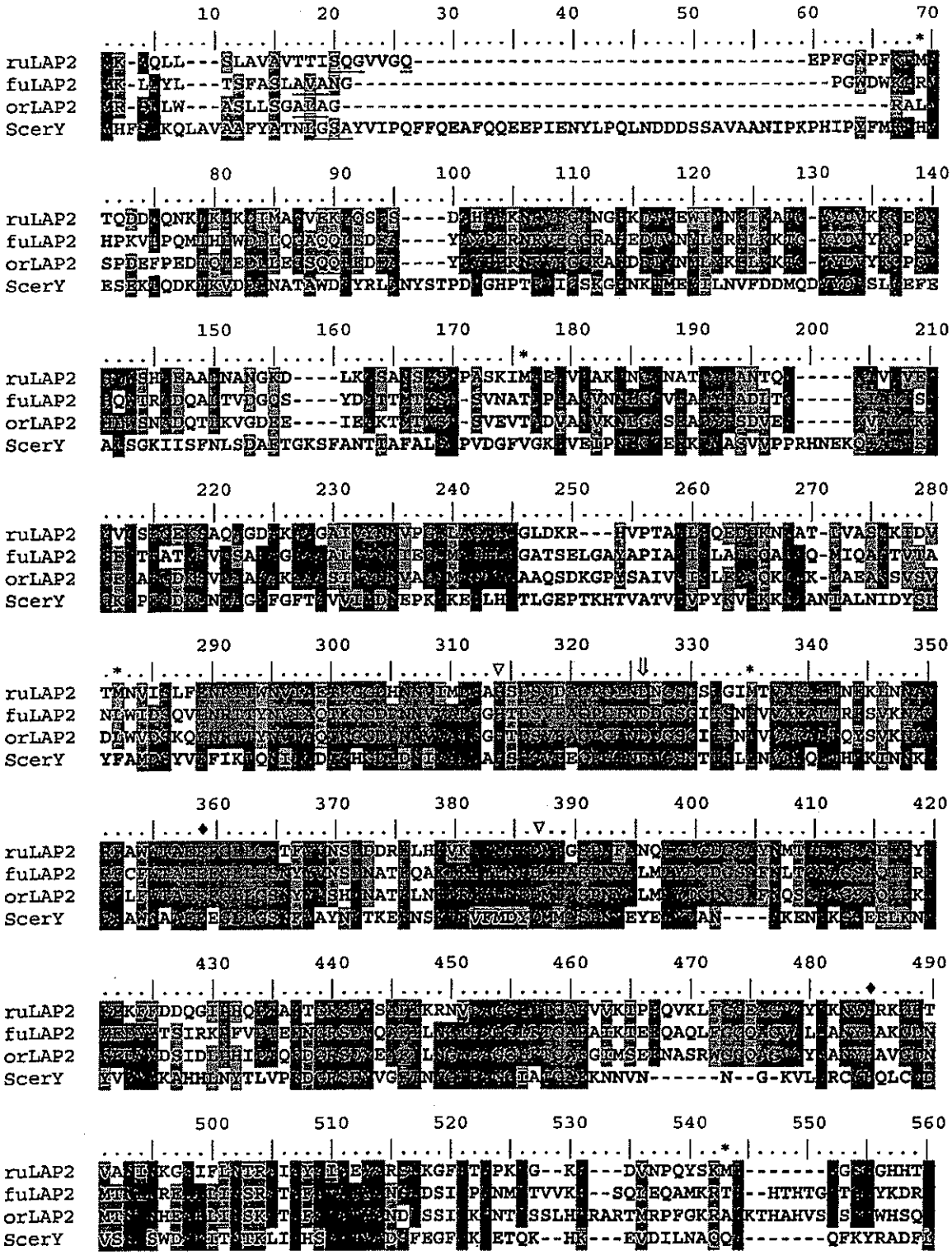

ruLAP2
fuLAP2
orLAP2
ScerY
.*
ruLAP2 FM (SEQ ID NO:83)
fuLAP2 EQ (SEQ ID NO:84)
orLAP2 EA (SEQ ID NO:85)
ScerY II (SEQ ID NO:86)

FIG. 15