

Figure 1a

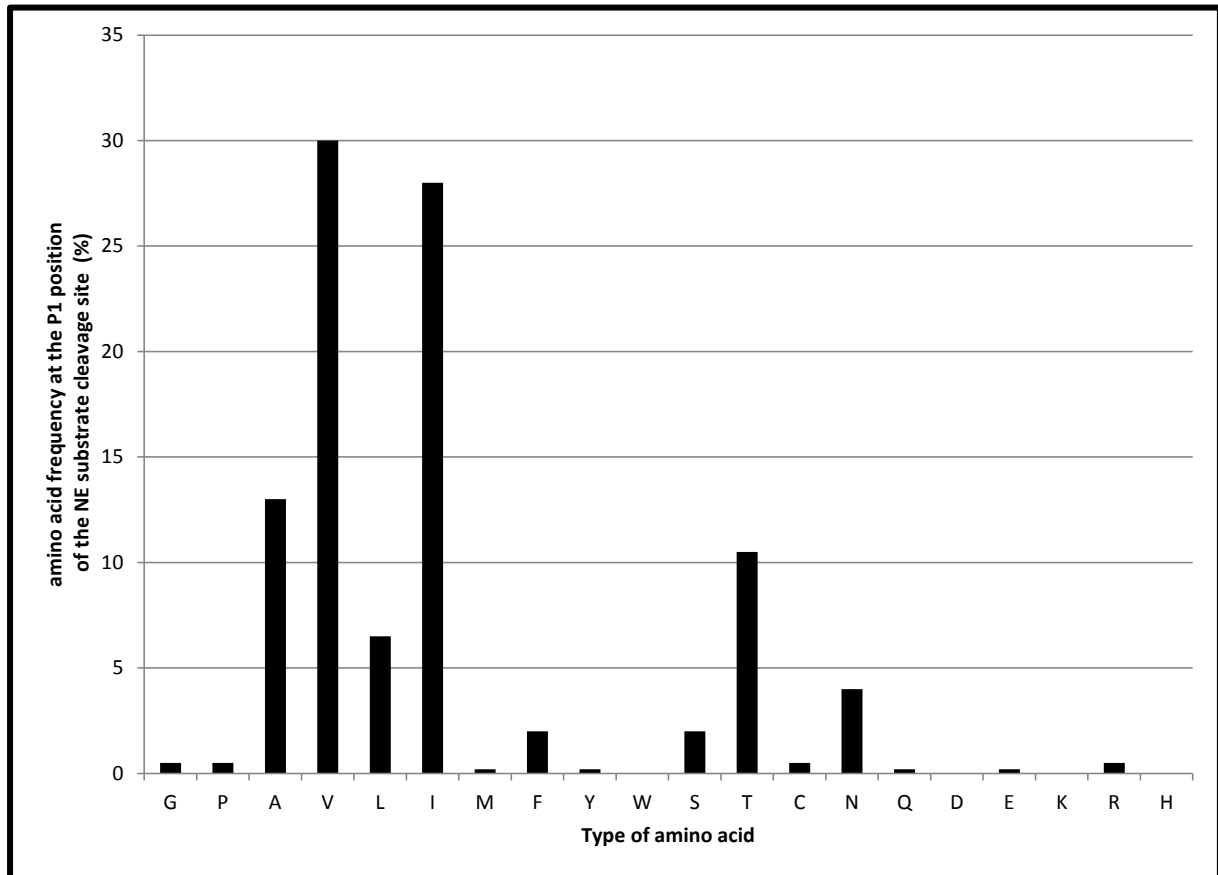


Figure 1. The relative amino acids frequency at the P1 position of NE cleavage sites was determined using the MEROPS database (<https://merops.sanger.ac.uk/>). Gly (G) was selected to replace the Ser¹⁵ and Ala¹⁶ residues at the P1 position in the cleavage sites of SLPI by NE as Gly is rarely found at the P1 position of NE substrates.

Figure 1B

SLPI-WT

1 10 20 30 40 50 60 70 80 90 100
SGKSFKAGVCPPKKSAQCLRYKKPEQSDWQCPGKKRCCPDTCGIKCLDPVDTPNPTRRKPGKCPVTYGQCLMLNPPNFCEMDGQCKRDLKCCMGCMCGKSCVSPVKA
 ↑↑
 NE cleavage sites

SLPI-A16G

1 10 20 30 40 50 60 70 80 90 100
SGKSFKAGVCPPKKSGQCLRYKKPEQSDWQCPGKKRCCPDTCGIKCLDPVDTPNPTRRKPGKCPVTYGQCLMLNPPNFCEMDGQCKRDLKCCMGCMCGKSCVSPVKA

SLPI-S15G-A16G

1 10 20 30 40 50 60 70 80 90 100
SGKSFKAGVCPPKKGGQCLRYKKPEQSDWQCPGKKRCCPDTCGIKCLDPVDTPNPTRRKPGKCPVTYGQCLMLNPPNFCEMDGQCKRDLKCCMGCMCGKSCVSPVKA

Figure 1. **(B)** The positions of NE cleavage sites in SLPI are indicated by the arrows between Ser¹⁵-Ala¹⁶ and between Ala¹⁶-Gln¹⁷. The cleavage sites were mutated to Gly¹⁶-Gln¹⁷ for SLPI-A16G and Gly¹⁵-Gly¹⁶ for SLPI-S15G-A16G. The mutations are indicated in underlined bold type.