

**Table 1.** Characteristics of representative synthetic peptides used in this study

| PEPTIDE                          | SEQUENCE                      | RELEVANT FEATURES                                     |                        |                           |
|----------------------------------|-------------------------------|-------------------------------------------------------|------------------------|---------------------------|
| <b>Parent peptide</b>            |                               |                                                       |                        |                           |
| LF11                             | FWQQRNIRKVR-NH <sub>2</sub>   | Derived from human lactoferricin (see reference [29]) |                        |                           |
| <b>LF11 derived <sup>1</sup></b> |                               |                                                       |                        |                           |
|                                  |                               |                                                       | HEMOLYSIS <sup>2</sup> | CYTOTOXICITY <sup>3</sup> |
| P 2                              | FWQIRKVR-NH <sub>2</sub>      | Internal single amino acid deletions                  | 1                      | 83                        |
| P 3                              | FWRNIRKVR-NH <sub>2</sub>     |                                                       | 0                      | 82                        |
| P 4                              | FWQRNIRVR-NH <sub>2</sub>     |                                                       | 5                      | 101                       |
| P 8                              | FWQRNIRKVKK-NH <sub>2</sub>   |                                                       | 3                      | 103                       |
| P 10                             | FWQRNIRKVKKK-NH <sub>2</sub>  |                                                       | 3                      | 96                        |
| P 11                             | FWQRNIRKVRRRR-NH <sub>2</sub> | Positively charged C-terminal extension               | 2                      | 111                       |
| P 13                             | FWQRNIRKVKKKK-NH <sub>2</sub> |                                                       | 0                      | 109                       |
| P 14                             | FWQRNIRKVKKKI-NH <sub>2</sub> |                                                       | 6                      | 110                       |
| P 15                             | FWQRRIRKVRR-NH <sub>2</sub>   |                                                       | 4                      | 108                       |
| P 17                             | RFWQRNIRKVRR-NH <sub>2</sub>  |                                                       | 1                      | 108                       |
| P 21                             | RFWQRNIRKYR-NH <sub>2</sub>   | Positively charged N and C terminal extensions        | 0                      | 93                        |
| P 22                             | RFWQRNIRKYRR-NH <sub>2</sub>  |                                                       | 0                      | 91                        |
| P 24                             | RRWQRNIRKYRR-NH <sub>2</sub>  |                                                       | 0                      | 99                        |
| P 25                             | cFWQRNIRKVRc-NH <sub>2</sub>  | Disulfide insertion; Cyclic                           | 5                      | 97                        |
| P 28                             | CFWQRNIRKVRC-NH <sub>2</sub>  | Disulfide insertion; Linear                           | 5                      | 101                       |
| P 34                             | FYQRNIRKVR-NH <sub>2</sub>    |                                                       | 8                      | 107                       |
| P 36                             | FWQRNIRIRR-NH <sub>2</sub>    | Single hydrophobic substitutions                      | 0                      | 114                       |
| P 40                             | FWQRNIFKVR-NH <sub>2</sub>    |                                                       | 0                      | 115                       |
| P 41                             | FWQRNIYKVR-NH <sub>2</sub>    |                                                       | 0                      | 103                       |
| P 43                             | FIWQRNIRKVR-NH <sub>2</sub>   | Substitution of Q in position 2                       | 0                      | 97                        |
| P 44                             | FLWQRNIRKVR-NH <sub>2</sub>   |                                                       | 2                      | 99                        |
| P 46                             | FWARNIRKVR-NH <sub>2</sub>    | substitution of Q in position 4                       | 0                      | 92                        |
| P 48                             | FWLRNIRKVR-NH <sub>2</sub>    |                                                       | 0                      | 99                        |
| P 49                             | FWVRNIRKVR-NH <sub>2</sub>    |                                                       | 0                      | 103                       |
| P 50                             | FWPRNIRKVR-NH <sub>2</sub>    |                                                       | 0                      | 91                        |
| P 54                             | FWQRNISKVR-NH <sub>2</sub>    | substitution R for S in position 8                    | 10                     | 102                       |
| P 55                             | FWQRNIRSVR-NH <sub>2</sub>    | substitution K for S in position 9                    | 8                      | 90                        |

<sup>1</sup> Modifications were selected based on the tertiary structure of LF11 and SAR analysis (to be published elsewhere)<sup>2</sup> Measured at a peptide concentration of 250 (μg/mL) and expressed as percentage of red blood lysis<sup>3</sup> Measured at a peptide concentration of 250 (μg/mL) and expressed as percentage of HeLa cell survival