

Name	Amino acid sequence	Structure	Expression
$\alpha$ -Defensins			
<b>HNP-1</b>	AC <u>Y</u> CRIPAC <u>I</u> AGERRYGT <u>C</u> IYQGRLWAF <u>C</u> C	$\beta$ -sheet	Ind. in neutrophils, natural killer cells, monocytes
<b>HNP-2</b>	<u>C</u> YCRIPAC <u>I</u> AGERRYGT <u>C</u> IYQGRLWAF <u>C</u> C	$\beta$ -sheet	Ind. in neutrophils, natural killer cells, monocytes
<b>HNP-3</b>	DC <u>Y</u> CRIPAC <u>I</u> AGERRYGT <u>C</u> IYQGRLWAF <u>C</u> C	$\beta$ -sheet	Ind. in neutrophils, natural killer cells, monocytes
<b>HNP-4</b>	VC <u>S</u> CRLVFCRRT <u>E</u> LRVGN <u>L</u> IGGVSFTY <u>C</u> CTRVD	$\beta$ -sheet	Ind. in neutrophils, natural killer cells, monocytes
<b>HD-5</b>	ARAT <u>C</u> Y <u>C</u> RTGR <u>C</u> ATRESLSGV <u>C</u> EISGR <u>L</u> YRL <u>C</u> CR	$\beta$ -sheet	Const. in Paneth cells, epithelial cells
<b>HD-6</b>	TRAF <u>T</u> CH <u>C</u> RR <u>S</u> CYSTEYSYGT <u>C</u> TVMGINHR <u>F</u> C <u>L</u>	$\beta$ -sheet	Const. in Paneth cells, epithelial cells
$\beta$ -Defensins			
<b>HBD-1</b>	DHY <u>N</u> CVSSGGQ <u>C</u> LYSAC <u>P</u> IFTKI <u>Q</u> GT <u>C</u> YRGKAK <u>C</u> CK	$\beta$ -sheet	Const. in epithelial cells; ind. in monocytes
<b>HBD-2</b>	DPVT <u>C</u> LKSGAI <u>C</u> HPVFC <u>P</u> RRYK <u>Q</u> IGT <u>C</u> GLPGTK <u>C</u> CKK <u>P</u>	$\beta$ -sheet	Const. in epithelial cells; ind. In keratinocytes
<b>HBD-3</b>	QKY <u>Y</u> CRV <u>R</u> GG <u>R</u> CAVLS <u>C</u> LPKEEQIGK <u>C</u> STRGRK <u>C</u> CR <u>R</u> KK	$\beta$ -sheet	Const. in epithelial cells; ind. In keratinocytes
<b>HBD-4</b>	LDRI <u>C</u> GYGTAR <u>C</u> RRK <u>C</u> RSQEYRIGR <u>C</u> PNTYAC <u>L</u> RKWDESLN <u>R</u> TK	$\beta$ -sheet	Const. in epithelial cells; ind. In keratinocytes
Cathelicidins			
<b>LL-37</b>	LLGDFFRKSKEKIGKEFKRIVQRIKDFLRNLPRTES	$\alpha$ -helix	Ind. in neutrophils, monocytes, NK, T and B cells; const. in sweat glands
Histatins			
<b>Histatin-5</b>	DSHAKRHHGYKRFHEKHSHRGY	$\alpha$ -helix	Const. in salivary gland cells

**Table 1a | Main human antimicrobial peptides**

This table provides an information about the amino acid sequence, the structure and the site of expression of the main human AMPs discussed in this review. The cysteine residues, forming the disulfide bridges, of the defensins are underlined. Ind. = Inducible Cont. = constitutively

Name	Antimicrobial activity against
$\alpha$ -Defensins	
HNP-1	<i>Listeria monocytogenes</i> , <i>Staphylococcus epidermis</i> , <i>Staphylococcus aureus</i> , <i>Bacillus subtilis</i> , <i>Escherichia coli</i> , <i>Salmonella typhimurium</i> , <i>Pseudomonas aeruginosa</i> , <i>Burkholderia cepacia</i> , <i>Stenotrophomonas maltophilia</i> , <i>Proteus mirabilis</i> , <i>Proteus vulgaris</i> , <i>Candida albicans</i> <sup>a</sup> <i>Capnocytophaga spp.</i> <sup>b</sup> <i>Cryptococcus neoformans</i> <sup>c</sup>
HNP-2	<i>S. aureus</i> , <i>E. coli</i> , <i>Capnocytophaga spp.</i> , <i>P. aeruginosa</i> <sup>b</sup> <i>Cryptococcus neoformans</i> <sup>c</sup>
HNP-3	<i>E. coli</i> , <i>Capnocytophaga spp.</i> <sup>b</sup>
HNP-4	<i>E. coli</i> <sup>b</sup>
HD-5	<i>E. coli</i> , <i>L. monocytogenes</i> , <i>S typhimurium</i> <sup>c</sup>
HD-6	?
$\beta$ -Defensins	
HBD-1	<i>E. coli</i> , <i>Pseudomonas aeruginosa</i> , <i>Klebsiella pneumoniae</i> , <i>S. aureus</i> <sup>d</sup>
HBD-2	<i>E. coli</i> , <i>P. aeruginosa</i> , <i>K. pneumoniae</i> <i>S. aureus</i> , <i>Streptococcus pneumoniae</i> , <i>Candida albicans</i> , <i>Candida parapsilosis</i> , <i>Candida krusei</i> , <i>Enterococcus faecalis</i> <sup>d</sup>
HBD-3	<i>E. coli</i> , <i>P. aeruginosa</i> , <i>K. pneumoniae</i> , <i>S. aureus</i> , <i>Streptococcus pyogenes</i> , <i>Ent. faecium</i> , <i>Strep. pneumoniae</i> , <i>Staphylococcus carnosus</i> , <i>Burkholderia cepacia</i> , <i>Saccharomyces cerevisiae</i> , <i>C. albicans</i> , <i>C. parapsilosis</i> , <i>C. krusei</i> <sup>d</sup>
HBD-4	<i>E. coli</i> , <i>S. carnosus</i> , <i>P. aeruginosa</i> , <i>B. cepacia</i> , <i>Strep. Pneumoniae</i> , <i>S. aureus</i> , <i>Saccharomyces cerevisiae</i> <sup>d</sup>
Cathelicidins	
LL-37	<i>L. monocytogenes</i> , <i>S. epidermis</i> , <i>S. aureus</i> , <i>B. subtilis</i> , <i>E. coli</i> , <i>S. typhimurium</i> , <i>P. aeruginosa</i> , <i>B. cepacia</i> , <i>S. maltophilia</i> , <i>P. mirabilis</i> , <i>P. vulgaris</i> , <i>C. albicans</i> <sup>a</sup> , <i>Group A Streptococcus</i> <sup>e</sup>
Histatins	
Histatin-5	<i>Candida albicans</i> , <i>Cryptococcus neoformans</i> , <i>Aspergillus fumigatus</i> <sup>f</sup> <i>Streptococcus salivarius</i> , <i>Actinomyces naeslundii</i> , <i>Fusobacterium nucleatum</i> , <i>Veillonella parvula</i> <sup>g</sup>

**Table 1b | Antimicrobial activity of the main human antimicrobial peptides**

The antimicrobial properties of the human AMPs is listed in this table. The human AMPs have antimicrobial activity against a broad range of Gram positive and negative bacteria as well as certain fungi. Note that for some AMPs more microorganisms are reported that are sensitive for that specific AMP compared to others. Not all AMPs are studied equally which could play an important role in this. Possibly, the AMPs have antimicrobial properties against more microorganisms.

a = as reviewed in K. de Smet and R. Contreras (Biotechnol Lett. 2005) b = as reviewed in R.I. Lehrer (Annu Rev Immunol. 1993) c = as reviewed in J.J. Schneider *et al.* (J Mol Med. 2005) d = as reviewed in M. Pazgier *et al.* (Cell Mol Life Sci. 2006) e = V. Nizet *et al.* (Nature 2001) f = E.J. Helmerhorst *et al.* (Proc Natl Acad Sci U S A. 2001) g = with reduced activity, E.J. Helmerhorst *et al.* (J Dent Res 1999)