Table 1. Overview of antifungal peptides. The description includes, in order: the putative mechanism of action; source; synthetic route; chemical structure; minimum inhibitory concentration (MIC) for *C. albicans, A. fumigatus* and *C. neoformans*; references.

Peptide	Putative mechanism	Source	Synthetic route (MW)	Chemical Structure	MICs (µg/ml)			References
					Candida albicans	***Aspergillus fumigatus***	***Cryptococcus neoformans***	
Pore forming								
Amphotericin B	Pore forming - Barrel and Stave model	*Streptomyces nodosus*	Non ribosomal (0.92 kDa)	Yamamoto et al, 2019 (1)	0.25 - 2	0.5 - 4	0.12 - 2	(2–5)
Dermaseptins - Dermaseptin S1	Pore forming - Carpet model	*Phyllomedusa sauvagei* - waxy monkey tree frog	Ribosomal (3.45 kDa)	PubChem: 16130489	10 - 69.	30	0.5 - 1	(6, 7)
Syringomycin - syringomycin E	Pore forming - Carpet model	*Pseudomonas syringae*	Non ribosomal (1.22 kDa)	Sorensen et al, 1996 (8)	2.5 - 5	10 - 20.	2.5 - 10	(8)
Cecropins - cecropin A	Pore forming - Carpet model	*Hyalophora cecropia* - cecropia moth	Ribosomal (4 kDa)	Lee et al, 2013 (9)	1.3	50	NA	(9, 10)
LL-37 / CRAMP	Pore forming - toroidal pore model	*Homo sapiens* / *Mus musculus*	Ribosomal (4.49 kDa)	NMR from Wang 2008 (11)	>250 64	38	NA	(12, 13)
Protegrins - Protegrin-1	Pore forming - toroidal pore model	*Sus scrofa domesticus* - domestic pig	Ribosomal (2.15 kDa)	Fahrnerl et al, 1996 (14)	4	14 - 64	1 - 4.	(15)
Melittin	Pore forming - toroidal pore model	Venom of honeybee *Apis mellifera*	Ribosomal (2.84 kDa)	Ramirez et al, 2019 (16)	3.5 - 91	3.5	NA	(17–19)

Iturin A	Pore dependent, but causes cell wall damage, ROS accumulation, and Hog1-MAPK activation	*Bacillus spp*	Non ribosomal (1.04 kDa)	ChemIDplus: 52229-90-0	32	NA	NA	(20)
Skin-PYY	Pore formation	*Phyllomedusa bicolor* - giant monkey frog	Ribosomal (4.3 kDa)	RCSB PDB: 2DEZ	25	100	25	(21)
Aureobasidin A	Pore formation -non-competitive inhibition of IPC	*Aureobasidium pullulans*	Non ribosomal (1.1 kDa)	Takesako et al, 1993 (22)	<0.04 - 4	>50	0.31 - 0.63	(22–24)
Zeamatin	Membrane permeabilization	*Zea mays* (corn) seeds	Ribosomal (22 kDa)	RCSB PDB: 1DU5	NA	NA	NA	
Peptaibols - heptaibin	Alteration of membrane permeability by pore formation	*Emericellopsis sp BAUA8289*	Non ribosomal (1.56 kDa)	De Zotti et al, 2011 (25)	32	13	32	(26)
Thionins - CaThi	Membrane permeabilization through unclear mechanism	*Capsicum annuum* - chili pepper plant	Ribosomal (5 kDa)	Predicted structure from Nikte et al, 2020 (27)	10	NA	NA	(28)
Plant Defensins								

RsAFP2	Membrane permeabilization through glucosylceramides interaction	*Raphanus sativus* - Radish	Ribosomal (5.74 kDa)	RCSB PDB: 2N2R	14.35	NA	NA	(29)
Human Defensins								
RTD-1	Cell permeabilization associated with ATP release and intracellular ROS accumulation	*Macaca mulatta* - Rhesus macaque	Ribosomal (2.08 kDa)	RCSB PDB: 1HVZ	6.25 - 12.5	NA	<5	(30, 31)
β-1,3-glucan synthase								
Pneumocandins - Pneumocandin A0	Non-competitive inhibition of β-1,3-glucan synthase	*Zalerion arboricola*	Non ribosomal (1.08 kDa)	ChemBook: 539823-80-8	"Candida spp.": 0.06 - 8.0	"Aspergillus spp.": >128	NA	(32)
Echinocandin B	Noncompetitive inhibition of β-1,3-glucan synthase	*Aspergillus nidulans*	Non ribosomal (1.06 kDa)	Hashizume &Nishimura, 2008, figure 36 (33)	"Candida spp.": 0.01	"Aspergillus spp.": >128	NA	(32)
Aculeacin A	Noncompetitive inhibition of β-1,3-glucan synthase	*Aspergillus aculeatus*	Non ribosomal (1.04 kDa)	PubChem: 14315169	0.04 - 0.2	>80	>80	(34, 35)
Other glucans								
Nikkomycin Z	Competitive inhibition of chitin synthases	*Streptomyces tendae*	Non ribosomal (0.49 kDa)	PubChem: 456557	4	>64	>64	(36)

Polyoxins - Polyoxin D	Inhibition of chitin synthases	*Streptomyces cacaoi*	Non ribosomal (0.52 kDa)	PubChem: 72476	0.26	>16	0.26	(37, 38)
Rabbit Defensins - NP-1	Chitin sequestration	Rabbit	Ribosomal (3.44 kDa)	PubChem: 16130476	2.3	NA	3.75 - 15	(39, 40)
Pradimicins - Pradimicin A	D-mannose recognition	*Actinomadura hibisca*	Non ribosomal (0.84 kDa)	Oki et al, 1988 (41)	6.3	3.1	0.8	(41)
Benanomicins - Benanomicin A	D-mannose recognition	*Actinomadura spadix*	Non ribosomal (0.83 kDa)	Kondo et al, 1990 (43)	6.25	3.13 - 6.25	1.56	(44)
Others								
Actinomycins - Actinomycin D	DNA intercalation	*Streptomyces spp*	Non ribosomal (1.25 kDa)	Rathod et al, 2018 (45)	0.062	NA	NA	(45)
Indolicidin	DNA binding	Cytoplasmic granules of bovine neutrophils	Ribosomal (0.9 kDa)	Rozek et al, 2000 (46)	25 - 50	NA	25	(47, 48)
Histatins - Histatin 5	Unidentified intracellular target responsible for ROS formation and ATP efflux	Human saliva	Ribosomal (3.04 kDa)	ChemBook	4 - 16.	54.65	2.1	(49)
Hassallidins - hassallidin A	Membrane disruption	*Hassallia spp* and other cyanobacteria	Non ribosomal (1.4 kDa)	Neuhof et al, 2005 (50)	4 - 4.8	4.8	4	(50, 51)
Lyngbyabellins - hectochlorin	Hyperpolymerization of actin	*Lyngbya majuscula* (filamentous cyanobacteria)	Non ribosomal (0.67 kDa)	Marquez et al, 2002 (52)	10 µg/disk	NA	NA	(52)

Cepacidines - Cepacidine A	Unknown	*Burkholderia cepacia*	Non ribosomal (1.22 kDa)	Lee et al., 1994 (53)	0.391	NA	0.025	(53)
EntV	Unknown	*Enterococcus faecalis*	Ribosomal (68 kDA)	NA	0.02 (biofilm inhibition); 6.8 (hyphal inhibition)	NA	NA	(54)
Leucinostatin A	Possible plasma membrane interaction	*Penicillium lilacinum*	Non ribosomal (1.22 kDa)	Ishiyama et al, 2009 (55)	1.25 - 10	NA	1	(56)
Fengycins - C-16-Fengycin A	Cell wall interaction	*Bacillus amyloliquefaciens*	Non ribosomal (1.46 kDa)	H. Desmyttere et al 2019 (57)	32	NA	NA	(58)
α-MSH	Possible membrane permeabilization and cAMP induction	Vertebrates	Ribosomal (1.66 kDa)	PubChem: 44273719	>166.5	NA	NA	(59)
Ib-AMP1	Unknown	*Impatiens balsamina* seeds	Ribosomal (3.03 kDa)	PubChem: 16132245	15.2	NA	NA	(60)
Psoriasin	Interference with zinc homeostasis	Skin lesions of patient with psoriasis	Ribosomal (11.46 kDa)	Brodersen et al, 1998 (61)	>229	22.9	NA	(62, 63)
VL-2397	Resemblance to ferrichrome	*Acremonium persicinum MF -347833*	Ribosomal (0.91 kDa)	Kovanda et al, 2019 (64)	>16	0.06 - 0.5	2	(65)
TistH	Unknown	Venom of the scorpion *Tityus stigmurus*	Ribosomal (2.62 kDa)	Machado et al, 2015 (66)	128	NA	NA	(67)

ToAP2	Unknown	Venom of the scorpion *T. obscurus*	Ribosomal (3 kDa)	Marques-Neto et al, 2018 (68)	0.037	NA	0.018 - 0.037	(69)
Cryptic								
VLL-28	Unknown, possible interaction with cell surface	Stf76 of *Sulfolobus islandicus*	Cryptic (3.54 kDa)	Notomista et al, 2015 (70)	88.5	NA	NA	(71)
Buforin 2	Possible interaction with nucleic acids	H2A histone of toads	Cryptic (2.43 kDa)	Park et al, 2000 (72)	1	NA	1	(72)
HP2-20	Membrane disruption via pore formation	Rpl1 of *Helicobacter pylori*	Cryptic (2.32 kDa)	RCSB PDB: 1P0G	29 - 58	58	>116	(73–75)
Cm-p1	Plasma membrane interaction	*Cenchritis muricatus* - marine snail	Cryptic (1.22 kDa)	RCSB PDB: 6CTG	32 - 64	256	128	(76, 77)

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