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Supplementary Table 1. List of plant, functional peptides and their bioactivities.

Plant	Peptides	Bioactivity	References
Actinidia chinensis	Thaumatin-like protein, Actc2	Antifungal, Antiviral	Gavrović-Jankulović *et al*., (2002)[91]; Wang & Ng, (2002)[383]
Actinidia deliciosa	Kiwellin	Pore-forming	Ciardiello *et al*., (2007)[48]
Adzuckia angularia, Medicago sativa	AB2, red bean antifungal peptide, Putative defensin 3.1	Antiviral, Antifungal	Ye & Ng, (2001)[424]
Adzuckia angularia, Medicago sativa	AB2, red bean antifungal peptide, Putative defensin 3.1	Antiviral, Antifungal	Ye & Ng, (2001)[424]
Aegilops-speltoides	WAMP-4	Antimicrobial	Slavokhotova, Naumann, *et al*., (2014)[329]
Aesculus hippocastanum	Defensin-like protein 1, Defensin AMP1, Ah-Amp1	Antibacterial, Antifungal	Fant *et al*., (1999)[74]; Osborn *et al*., (1995)[267]
Aesculus hippocastanum	Ah-AMP 1	Antimicrobial	Osborn *et al*., (1995)[267]
Allium cepa	Antimicrobial protein Ace-AMP1	Antibacterial, Antifungal, Hemolytic, Cytotoxic	Phillippe *et al*., (1995)[283]; Tassin *et al*., (1998)[350]
Allium cepa var. aggregatum	Ascalin	Antifungal, Hemolytic, Cytotoxic	Wang & Ng, (2002)[384]
Allium sativum	Alliumin	Antibacterial, Anticancer, Antifungal	Xia & Ng, (2005)b[413]
Allium sativum	Angiotensin I-converting enzyme inhibitor 4	Enzyme-inhibitor, Neuropeptide, Antihypertensive, ACE-inhibitor, Taste	García *et al*., (2013)[90]; Puchalska *et al*., (2015)[298]
Allium sativum	Angiotensin I-converting enzyme inhibitor 5	Enzyme-inhibitor, Neuropeptide, Antihypertensive, ACE-inhibitor, Taste	García *et al*., (2013)[90]; Puchalska *et al*., (2015)[298]
Allium sativum	Angiotensin I-converting enzyme inhibitor 2	Enzyme-inhibitor, Neuropeptide, Antihypertensive, ACE-inhibitor	García *et al*., (2013)[90]; Puchalska *et al*., (2015)[298]
Allium sativum	dipeptides Ser-Tyr, Gly-Tyr, Phe-Tyr, Asn-Tyr, Ser-Phe, Gly-Phe, and Asn-Phe	Antihypertensive, Antioxidant	Suetsuna, (1998)[341]
Amaranthus caudatus, Amaranthus hypochondriacus	Antimicrobial peptide Ac-AMP2	Antibacterial, Antifungal, Alpha-amylase-inhibitor	Broekaert *et al*., (1992)[25]; Chagolla-Lopez *et al*., (1994)[35]; Van den Bergh *et al*., (2002)[371]
Amaranthus caudatus, Amaranthus hypochondriacus, Amaranthus tricolor, Amaranthus retroflexus, Amaranthus hybridus, Amaranthus blitum, Amaranthus cruentus,	AC-AMP1	Antifungal, Antibacterial	Broekaert *et al*., (1992)[25]; De Bolle *et al*., (1993)[63]

Amaranthus albus			
Amaranthus hypochondriacus	Seed glutenin fragment 75	Anti-inflammatory	Silva-Sánchez *et al*., (2008)[325]
Amaranthus hypochondriacus	peptide matched more than 60% of the soybean lunasin peptide sequence	Antihypertensive	Silva-Sánchez *et al*., (2008)[325]
Amaranthus hypochondriacus	tripeptides were detected: IKP and LEP, ALEP and VIKP	Antihypertensive	Vecchi & Añón, (2009)[373]
Amaranthus retroflexus	Ar-AMP	Antimicrobial, Antibacterial, Antifungal	Lipkin *et al*., (2005)[182]
Amaryllis belladonna	Amaryllin	Antifungal	Kumar *et al*., (2009)[162]
Ambrosia artemisiifolia var. elatior	Pollen allergen Amb a 5 [L2] Pollen allergen Amb a 5 [V2]	Allergen	Mole *et al*., (1975)[218]
Angelica sinensis	AsiPeps	Antioxidant	Wang *et al*., (2016)[388]
Annona cherimola	cherimolacyclopeptide B	Cytotoxic	Osipov *et al*., (2004)[269]
Annona cherimola	cherimolacyclopeptide A	Cytotoxic	Wélé, Landon, *et al*., (2004)[397]
Annona cherimola	Cyclopeptide E	Antimicrobial, Anticancer	Wélé, Zhang, *et al*., (2005)[399]
Annona cherimola	Cyclopeptide F	Antimicrobial, Anticancer	Wélé, Zhang, *et al*., (2005)[399]
Annona cherimola	Cherimolacyclopeptide G	NA	Wele *et al*., (2006)[400]
Annona cherimola	Cherimolacyclopeptide D	NA	Wélé, Ndoye, *et al*., (2005)[398]
Annona cherimola	Cherimolacyclopeptide C	Cytotoxic	Wélé, Zhang, *et al*., (2004)[401]
Annona glabra	glabrin B	Anticancer	Li *et al*., (1998)[174]
Annona glabra	Glabrin A	Anticancer	Li *et al*., (1998)[174]
Annona glabra	glabrin C	Anticancer	Li *et al*., (1998)[174]
Annona glabra	Glabrin D	Anticancer	Li *et al*., (1998)[174]
Annona montana	Cyclomontanin C, Cyclomontanin A/ Cyclomontanin B, Cyclomontanin D	Anti-inflammatory	Chuang *et al*., (2008)[47]
Annona squamosa	Annosquamosin A	Anticancer, Antiparasitic	Chao-Ming *et al*., (1997)[39]
Annona squamosa	Cyclosquamosin A, Cyclosquamosin B, Cyclosquamosin C, Cyclosquamosin D, Cyclosquamosin E, Cyclosquamosin F, Cyclosquamosin G	Antimalarial, Immunosuppressive, Antifeedant, Cytotoxic	Morita *et al*., (1999)[230]
Annona squamosa	Cyclosquamosin I	Anti-inflammatory	Yang *et al*., (2008)[422]
Aquilegia olympica	Putative defensin 1	Antimicrobial	Whittall *et al*., (2006)[402]
Arabidopsis thaliana, Arabidopsis lyrata	Defensin AtPDF2.3	Antifungal, Antimicrobial	Epple *et al*., (1997)[70]; Lin *et al*., (1999)[180]; Vanoosthuyse *et al*., (2001)[372]; Vriens *et al*.,

			(2016)[378]; Yamada *et al*., (2003)[416]
Arachis diogoi	Thaumatin-like protein	Antifungal	Singh *et al*., (2013)[327]
Arachis diogoi, Cicer arietinum, Cajanus cajan, Trigonella foenum-graccum	Coccinin	Antifungal, Antiproliferative, HIV-1-reverse-transcriptase-inhibition	Ngai & Ng, (2004)c[249]
Arachis hypogaea	Flour angiotensin I-converting enzyme inhibitor	Enzyme-inhibitor, Neuropeptide, ACE-inhibitor	Guang & Phillips, (2009)[102]
Arachis hypogaea	ACE inhibitory peptide	ACE-inhibitor, Antihypertensive	Jimsheena & Gowda, (2010)[141]
Arenaria oreophila	Arenariphilin A	Antihypertensive	Cavazos & Gonzalez de Mejia, (2013)[34]
Asparagus officinalis, Daucus carota	Phytosulfokine beta	Development-regulator	Matsubayashi & Sakagami, (1996)[202]
Astragalus mongholicus	Antifungal lectin AMML	Antifungal	Yan *et al*., (2005)[417]
Avena sativa	Thionin Asthi4, Thionin Asthi5, Leaf thionin Asthi2, Leaf thionin Asthi1, Leaf thionin Asthi3	Antimicrobial	Iwai *et al*., (2002)[136]
Avena sativa	Endochitinase	Antifungal	Sørensen *et al*., (2010)[335]
Bambusa vulgaris	Asp-Tyr was identified as the key active component	ACE-inhibitor	Liu *et al*., (2013)[186]
Basella alba	Alpha-basrubrin, Beta-basrubin	Antifungal, Antiviral	Wang & Ng, (2001)[382]
Benincasa hispida	Hispidalin	Antibacterial, Antifungal, Antioxidant	Sharma *et al*., (2014)[320]
Benincasa hispida	transPro24 Serine proteinase inhibitor	Enzyme-inhibitor	Atiwetin *et al*., (2006)[8]
Benincasa hispida	Alpha-benincasin	Antifungal	Ng *et al*., (2003)[246]; Zhu *et al*., (2018)[441]
Beta vulgaris	AX2, AX1	Antibacterial, Antifungal	Kragh *et al*., (1995)[159]
Beta vulgaris	IWF4	Antifungal	Nielsen *et al*., (1997)[256]
Beta vulgaris	IWF2 (Bv-LTP2), IWF1 (Bv-LTP1)	Antifungal	Nielsen *et al*., (1996)[255]
Brassica napus	Cysteine-rich antifungal protein 1 (Bn-AFP1)	Antifungal	Terras *et al*., (1993)[353]
Brassica napus	Pro-rich peptide BnPRP1	Antibacterial, Antifungal	Cao *et al*., (2015)[30]
Brassica napus	Metallothionein-like peptide LSC54	Heavy-metal-binding	Buchanan-Wollaston, (1994)[28]
Brassica napus	ACE inhibitory peptide	ACE-inhibitor	Lee & Hur, (2017)a[170]
Brassica napus, Raphanus sativus	Cysteine-rich antifungal protein 2 (Bn-AFP2), Rs-AFP-1	Antifungal, Antibacterial	Kraszewska *et al*., (2016)[160]; Terras *et al*., (1993)[353]
Brassica oleracea	Broccoli protein fragment	Enzyme-inhibitor, Neuropeptide, ACE-inhibitor, Hypotensive, Antihypertensive	García *et al*., (2013)[90]; Lee *et al*., (2006)[168]
Brassica oleracea var.	Napin-like polypeptide	Antibacterial	Ngai & Ng, (2004)b[248]

alboglabra			
Brassica rapa	Cysteine-rich antifungal protein 1 (Br-AFP1), Cysteine-rich antifungal protein 2 (Br-AFP2)	Antifungal	Terras *et al*., (1993)[353]
Brassica rapa	BrD1	Insecticidal	Choi *et al*., (2009)[45]
Brassica rapa subsp. Chinensis	Antibacterial napin	Antibacterial	Ngai & Ng, (2004)a[247]
Broussonetia papyrifera	PMAPII, PMAPI	Antifungal	Zhao *et al*., (2011)[438]
Bryonia dioica	Trypsin inhibitor BDTI-II	Enzyme-inhibitor	Otlewskia *et al*., (1987)[271]
Calotropis procera	Osmotin (Fragment)	Antifungal	Freitas *et al*., (2011)[80]
Canavalia ensiformis	Jaburetox	Insecticidal, Antifungal	Postal *et al*., (2012)[292]
Cannabis sativa	ACE inhibitory peptide	ACE-inhibitor	Girgih, He, & Aluko, (2014)[95]
Cannabis sativa	hemp seed protein hydrolysate (HPH)	Antioxidant, Antihypertensive	Girgih, He, Malomo, *et al*., (2014)[96]
Cannabis sativa	ACE inhibitory peptide (HPH)	Antioxidant, Antihypertensive, ACE-inhibitor	Girgih, He, & Aluko, (2014)[95]; Girgih, He, Malomo, *et al*., (2014)[96]
Capsella bursa pastoris	Shepherin II, Antimicrobial peptide shep-GRP	Antibacterial, Antifungal	Park *et al*., (2000)[272]
Capsella bursa pastoris	Shepherin I, Antimicrobial peptide shep-GRP	Antibacterial, Antifungal, Hemolytic	Park *et al*., (2000)[272]; Remuzgo *et al*., (2014)[302]
Capsicum annuum	Osmotin-like protein	Antimicrobial	Kim *et al*., (2002)[149]
Capsicum annuum	Defensin J1-1 Defensin J1-2	Antimicrobial, Antifungal	Meyer *et al*., (1996)[212]
Capsicum annuum	Proteinase inhibitor PSI-1.2, HyPep	Antifungal, Serine-protease-inhibitor	Vieira Bard *et al*., (2015)[375]
Capsicum baccatum	BCH4a	Antifungal, Alpha-amylase-inhibitor	Bard *et al*., (2014)[16]
Capsicum chinense	CcD1	Antifungal	Anaya-López *et al*., (2006)[4]
Castanopsis chinensis	Thaumatin-like protein	Antifungal, Antiviral	Chu & Ng, (2003)[46]
Chassalia chartacea	Cyclotide chassatides	Antimicrobial, Cytotoxic, Hemolytic	Nguyen *et al*., (2012)[251]
Chassalia curviflora, Viola tricolor	Chacur 1	Antimicrobial	Hellinger, Koehbach, Soltis, *et al*., (2015)[125]; Koehbach *et al*., (2013)[151]
Chassalia parvifolia	Circulin-C Circulin D Circulin-E Circulin F	Antiviral, Anti-HIV	Gustafson *et al*., (2000)[103]
Chassalia parvifolia	Circulin-B, CIRB	Antibacterial, Antifungal, Hemolytic, Cytotoxic, Antiviral, Insecticidal, Anti-HIV	Derua *et al*., (1996)[65]; Hayashi *et al*., (1966)[116]; Tam *et al*., (1999)[347]

Chassalia parvifolia	Circulin-A, CIRA	Antibacterial, Antifungal, Hemolytic, Cytotoxic, Anti-HIV	Daly *et al*., (1999)[58]; Derua *et al*., (1996)[65]; Fujikawa *et al*., (1965)[81]; Kraszewska *et al*., (2016)[160]; Tam *et al*., (1999)[347]
Chlorella vulgaris	Angiotensin I-converting enzyme inhibitor	Antihypertensive	He *et al*., (2013)[119]
Citrullus vulgaris, Citrullus lanatus	Trypsin inhibitor CVTI-I	Enzyme-inhibitor	Otlewskia *et al*., (1987)[271]
Citrus aurantium	CA26-C1-002-103-F06-CT.F CA26-C1-002-078-G08-CT.F	Estrogen-like-activity	Condie *et al*., (2011)[52]
Citrus medica	Noname-671 Noname-672	Antibiotic, Anti-inflammatory, Cytotoxic	Matsumoto *et al*., (2002)[204]
Citrus natsudaidai	a_2_H09/ Cyclonatsudamine A	Estrogen-like-activity, Neuropeptide	Condie *et al*., (2011)[52]; Luo *et al*., (2007)[190]
Citrus natsudaidai, Citrus sinensis	citrusin II citrusin III citrusin IV	Anticancer	Matsubara *et al*., (1991)[201]
Citrus unshiu	citrusin I	Anticancer	Matsubara *et al*., (1991)[201]
Clitoria ternatea	Cyclotide cliotide T8 Cyclotide cliotide T9 Cyclotide cliotide T2 Cyclotide cter B	Antimicrobial	Nguyen, Zhang, Nguyen, *et al*., (2011)[252]
Clitoria ternatea	Ct-AMP1	Antifungal, Antimicrobial	Osborn *et al*., (1995)[267]
Clitoria ternatea	Cter L Cter K	Antimicrobial, Insecticidal, Hemolytic, Anthelmintic, Antibacterial, Cytotoxic	Poth *et al*., (2011)[293]
Clitoria ternatea	cT22	Antibacterial	Nguyen *et al*., (2016)[254]
Clitoria ternatea	cT45	Antimicrobial	Serra *et al*., (2016)[317]
Clitoria ternatea	cliotide T8	Antimicrobial, Cytotoxic	Nguyen, Zhang, Nguyen, *et al*., (2011)[252]
Cocos nucifera	Antimicrobial peptide 1	Antibacterial	Mandal *et al*., (2009)[193]
Cocos nucifera	Antifungal protein from coconut	Antifungal, Antiviral, Anti-HIV	Wang & Ng, (2005)[387]
Cocos nucifera	Cn-AMP3	Antimicrobial	Mandal *et al*., (2009)[193]
Cocos nucifera	Cn-AMP1	Antimicrobial, Antifungal	Mandal *et al*., (2009)[193]
Cocos nucifera	Cn-AMP2	Antibacterial, Antifungal, Antimicrobial	Mandal *et al*., (2009)[193]
Coffea arabica	50S ribosomal peptide L36	Ribonucleoprotein	Samson *et al*., (2012)[310]
Coffea canephora	Cc-GRP	Antifungal	Zottich *et al*., (2013)[443]
Coffea canephora	Cc-LTP1	Alpha-amylase-inhibitor, Antifungal	Zottich *et al*., (2011)[444]
Coix lachryma	most potent peptide GAAGGAF	ACE-inhibitor	B. Li *et al*., (2017)[172]
Coix lachryma	oligopeptides	ACE-inhibitor, Antihypertensive	Qiao *et al*., (2016)[299]

Corylus heterophylla	novel ACE inhibitory peptides Ala-Val-Lys-Val-Leu (AVKVL), Tyr-Leu-Val-Arg (YLVR), and Thr-Leu-Val-Gly-Arg (TLVGR)	ACE-inhibitor	Liu *et al*., (2018)[183]
Cryptomeria japonica	Putative Rapid alkalinization factor, RALF	RALF-Rapid-alkalinization-factor	Pearce *et al*., (2001)[277]
Cucumis melo	Trypsin inhibitor CMeTI-A' Trypsin inhibitor CMeTI-B' Trypsin inhibitor CMeTI-B	Enzyme-inhibitor	Lee & Lin, (1995)[167]
Cucumis melo	Trypsin inhibitor CMCTI-I Trypsin inhibitor CMCTI-II Trypsin inhibitor CMCTI-III Trypsin inhibitor HMTI	Enzyme-inhibitor	Takeshi, (1977)[346]
Cucurbita maxima	Antifungal protein Pr-2	Antifungal	Park *et al*., (2009)[273]
Cucurbita maxima	Cucurmoschin	Antimicrobial, Antifungal	Wang & Ng, (2003)b[386]
Cucurbita maxima	Trypsin inhibitor CMTI-IV	Enzyme-inhibitor	Wieczorek *et al*., (1985)[403]
Cucurbita maxima	Basic peptide	Toxin	Naisbitt *et al*., (1988)[240]
Cucurbita maxima	Trypsin inhibitor CMTI-I	Enzyme-inhibitor	Wilusz *et al*., (1983)[404]
Cucurbita maxima	Trypsin inhibitor CMTI-III	Enzyme-inhibitor	Wieczorek *et al*., (1985)[403]
Cucurbita pepo	Trypsin inhibitor CPTI II Trypsin inhibitor CPTI-III	Enzyme-inhibitor	Wieczorek *et al*., (1985)[403]
Cullen corylifolia	Antifungal protein, Psc-AFP	Antifungal	Yang *et al*., (2006)[420]
Cuminum cyminum	Alpha-amylase inhibitor	Alpha-amylase-inhibitor, Antioxidant	Siow & Gan, (2016)[328]
Cuscuta exaltata	Plastid 50S ribosomal peptide L36	Ribonucleoprotein	McNeal *et al*., (2007)[209]
Cuscuta gronovii, Cuscuta obtusiflora	Plastid 50S ribosomal peptide L36	Ribonucleoprotein	Funk *et al*., (2007)[85]
Cycas revoluta	Anticancerous peptide 1	Antibacterial, Anticancer	Mandal *et al*., (2012)[194]
Cycas revoluta	Cy-AMP3	Antibacterial, Antifungal	Yokoyama *et al*., (2008)[430]
Cycas revoluta	Cy-AMP1	Antibacterial, Antifungal	Yokoyama *et al*., (2008)[430]; (2009)[429]
Cycas revoluta	Cy-AMP2	Antibacterial, Antifungal	Yokoyama *et al*., (2008)[430]
Cycas taitungensis, Cycas taiwaniana	50S ribosomal peptide L36	Ribonucleoprotein	Wu *et al*., (2007)[410]
Dahlia merckii	Defensin AMP2 / DmAMP2	Antibacterial, Antifungal	Osborn *et al*., (1995)[267]; Thevissen, Cammue, *et al*., (2000)[354]; Thevissen, Osborn, *et al*., (2000)[357]; Thevissen *et al*., (2003)[356]; (2004)[358]; Zhu *et al*., (2007)[442]
Dahlia merckii	Defensin Dm-AMP2	Antimicrobial, Antifungal	Osborn *et al*., (1995)[267]

Dahlia merckii	Dm-AMP1	Antimicrobial	Osborn *et al*., (1995)[267]
Datura stramonium	Datucin	Antifungal, Antibiofilm	Mandal, (2012)[192]
Dendrobium findlayanum	Mannose-specific lectin	Antifungal	Sudmoon *et al*., (2008)[340]
Dendrocalamus latiflora Munro	Dendrocin	Antifungal, Antimicrobial	Wang & Ng, (2003)a[385]
Dendrophthora clavata, Hordeum vulgare	Denclatoxin-B	Antimicrobial, Toxin	(Samuelsson *et al*., 1977)
Dianthus caryophyllus	IAA16-like, Dc004	Estrogen-like-activity	Condie *et al*., (2011)[52]
Dianthus superbus	dianthin F, dianthin C, dianthin E, dianthin D	Cytotoxic	Hsieh *et al*., (2004)[128]
Dianthus superbus	dianthin B	Diuretic, Anti-inflammatory	Wang *et al*., (1998)[394]
Dianthus superbus	dianthin A	Diuretic, Anti-inflammatory	Wang *et al*., (1998)[394]
Dianthus superbus	Longicalycinin A	Antibacterial, Anticancer, Antifungal, Nematocide	Dahiya, (2007)[57]
Diospyros texana	Antifungal protein	Antifungal	(Vu *et al*., 1977)
Dorstenia contrajerva	Anti-HIV peptide, Contrajervin	Antiviral	Bokesch *et al*., (2004)[23]
Ecballium elaterium	Trypsin inhibitor EETI-II	Enzyme-inhibitor	FAVEL *et al*., (1989)[75]
Echinochloa crus-galli	EcLTP	Antibacterial, Antifungal, Anti-protist	Rogozhin *et al*., (2012)[306]
Echinochloa crus-galli	Defensin Ec-AMP-D1, Defensin Ec-AMP-D2	Antimicrobial, Antifungal	Odintsova *et al*., (2008)[262]
Echinochloa crus-galli	Antimicrobial peptide EcAMP2.1	Antifungal, Anti-protist	Rogozhin *et al*., (2012)[306]; Ryazantsev *et al*., (2014)[308]
Echinochloa crus-galli	Antimicrobial peptide EcAMP3	Antibacterial, Antifungal	Ryazantsev *et al*., (2014)[308]
Echinochloa crus-galli	EcAMP2	Antifungal, Anti-protist, Antimicrobial	Rogozhin *et al*., (2012)[306]; Ryazantsev *et al*., (2014)[308]
Echinochloa crus-galli	EcAMP1	Antifungal, Anti-protist, Antimicrobial	Nolde *et al*., (2011)[260]; Ryazantsev *et al*., (2014)[308]
Echinocystis lobata	Trypsin inhibitor ELTI-I Trypsin inhibitor ELTI-II	Enzyme-inhibitor	Stachowiak *et al*., (1996)[337]
Echinopsis pachanoi	Ep-AMP1	Antibacterial, Anticancer, Antifungal	Aboye *et al*., (2015)[1]
Elaeis guineensis	EGAD1, Defensin EGAD	Antimicrobial	Tregearm *et al*., (2002)[363]
Engelmannia peristenia	30 kDa antifungal protein	Antifungal	Huynh *et al*., (1996)[132]
Eucommia ulmoides	Antifungal peptide 2, EAFP2 Antifungal peptide 1, EAFP1	Antifungal	Huang *et al*., (2002)[130]
Eucommia ulmoides	EAFP2	Antifungal	Huang *et al*., (2002)[130]; (2004)[131]; Xiang *et al*., (2009)[414]

Euonymus europaeus	Hevein-like antimicrobial peptide, Hevein-like peptide Ee-chib/l, Hevein-like peptide Ee-CBPb, Hevein-like peptide Ee-CBPl	Antimicrobial, Antifungal	Van Den Bergh *et al*., (2004)[370]
Euonymus europaeus	Ee-CBP (leaves)	Antifungal	Van Den Bergh *et al*., (2004)[370]
Euonymus europaeus	Ee-CBP (Bark)	Antibacterial, Antifungal	Kraszewska *et al*., (2016)[160]; Van den Bergh *et al*., (2002)[371]; Van Den Bergh *et al*., (2004)[370]
Fagopyrum esculentum	Fa-AMP2 Fa-AMP1	Antibacterial, Antifungal	Fujimura *et al*., (2003)[84]; (2005)[83]
Fagopyrum esculentum	Bioactive peptide	Immunoregulator	Liu *et al*., (1998)[185]
Fagopyrum esculentum	ACE inhibitor from Fagopyrum esculentum	ACE-inhibitor	Koyama *et al*., (2013)[158]
Fagopyrum esculentum	ACE inhibitor from wheat gliadin	Antihypertensive, ACE-inhibitor	García *et al*., (2013)[90]; Lee & Hur, (2017)b[171]; Li *et al*., (2002)[173]; Ma *et al*., (2006)[191]; Murray & FitzGerald, (2007)[236]; Puchalska *et al*., (2015)[298]
Fagopyrum esculentum	Angiotensin I-converting enzyme inhibitor 9	ACE-inhibitor, Antihypertensive, Enzyme-inhibitor	Lee & Hur, (2017)b[171]; Li *et al*., (2002)[173]; Puchalska *et al*., (2015)[298]
Fagopyrum tataricum	Angiotensin I-converting enzyme inhibitor 6	Enzyme-inhibitor, Antihypertensive	Li *et al*., (2002)[173]; Puchalska *et al*., (2015)[298]
Fagopyrum tataricum	Angiotensin I-converting enzyme inhibitor 7	Enzyme-inhibitor, Antihypertensive	García *et al*., (2013)[90]; Li *et al*., (2002)[173]; Puchalska *et al*., (2015)[298]
Fagopyrum tataricum	Angiotensin I-converting enzyme inhibitor 11	Enzyme-inhibitor, Antihypertensive, ACE-inhibitor	Lee & Hur, (2017)b[171]; Li *et al*., (2002)[173]; Puchalska *et al*., (2015)[298]
Fagopyrum tataricum	Angiotensin I-converting enzyme inhibitor 8	Enzyme-inhibitor, Antihypertensive, ACE-inhibitor	García *et al*., (2013)[90]; Lee & Hur, (2017)b[171]; Li *et al*., (2002)[173]; Puchalska *et al*., (2015)[298]; Wang & Mejia, (2005)[391]
Fagopyrum tataricum	Trypsin inhibitor	Antifungal	Ruan *et al*., (2011)[307]
Fagopyrum tataricum, Zea mays, Triticum aestivum, Amaranthus hypochondriacus, Oryza sativa, Glycine max	Angiotensin I-converting enzyme inhibitor 3	Antihypertensive	(García *et al*., 2013; C. H. Li *et al*., 2002; Nakahara *et al*., 2010; Puchalska *et al*., 2015; Silva-Sánchez *et al*., 2008; Y. Yang *et al*., 2007; Yokomizo *et al*., 2002)
Fragaria ananassa	Osmotin-like protein	Antimicrobial	Wu *et al*., (2001)[411]
Ginkgo biloba	Ginkbilobin	Antibacterial, Antifungal, Antiviral, Anti-HIV	Wang & Ng, (2000)[381]
Ginkgo biloba	Antifungal protein ginkbilobin-2	Antifungal	Sawano *et al*., (2007)[314]
Gnetum parvifolium	50S ribosomal peptide L36	Ribonucleoprotein	Wu *et al*., (2007)[410]
Goniothalamus griffithii	grifficyclocin A	Anticancer	Mu *et al*., (2003)[233]

Gossypium herbaceum	Putative Rapid alkalinization factor, RALF	RALF-Rapid-alkalinization-factor	Pearce *et al*., (2001)[277]
Griffithsia sp.	Griffithsin	Antiviral	Mori *et al*., (2005)[220]
Gymnema sylvestre	Gurmarin	Taste	Kamei *et al*., (1992)[144]; Ota & Ariyoshi, (1995)[270]
Gymnocladus chinensis	Gymnin	Antiviral, Anticancer, Antifungal	Wong & Ng, (2003)[407]
Gynura pseudochina	Gynurin	Anticancer	Chaichana *et al*., (2019)[36]
Gypsophila oldhamiana	Gyposophin	Enzyme-inhibitor	Luo *et al*., (2007)[190]
Helianthus annuus	Ha-DEF1	Antifungal	Zélicourt *et al*., (2007)[435]
Helianthus annuus	11S globulin seed storage protein G3 [308-325]	Enzyme-inhibitor, ACE-inhibitor, Antihypertensive	García *et al*., (2013)[90]; Megías *et al*., (2004)[210]; Yonder Haar *et al*., (1988)[431]
Helianthus annuus, Helianthus argophyllus	SFT-L1	Trypsin-inhibitor	Mylne *et al*., (2011)[238]
Helianthus annuus, Helianthus exilis, Helianthus tuberosus	SFTI-1	Protease-inhibitor, Enzymatic-digestion	Korsinczky *et al*., (2001)[154]; Mulvenna, Foley, *et al*., (2005)[234]
Heliophila coronopifolia	Antifungal peptide 1 Antifungal peptide 2 Antifungal peptide 3 Antifungal peptide 4 Hc-AFP1 Hc-AFP2 Hc-AFP3 Hc-AFP4	Antifungal	De Beer & Vivier, (2011)[62]
Helleborus purpurascens	Hellethionin-D	Antimicrobial, Toxin	Milbradt *et al*., (2003)[213]
Helleborus purpurascens	Hellethionin E Hellethionin A	Toxin	Milbradt *et al*., (2003)[213]
Heuchera sanguinea	Defensin AFP1 / Hs-AFP1	Antibacterial, Antifungal, Antibiofilm	Nawrot *et al*., (2014)[244]; Osborn *et al*., (1995)[267]
Heuchera sanguinea	Hs-AFP 1	Antimicrobial	Hegedüs & Marx, (2013)[122]; Osborn *et al*., (1995)[267]
Hevea brasiliensis	Fungal growth inhibitor, Pseudo-hevein	Antimicrobial, Antifungal	Soedjanaatmadja *et al*., (1994)[332]
Hevea brasiliensis	Fungal growth inhibitor, Hevein, PR-4	Antimicrobial, Antifungal	Broekaert *et al*., (1990)[26]; Prabhu *et al*., (2013)[295]; Rodríguez-Romero *et al*., (1991)[304]
Hordeum vulgare	Leaf-specific thionin	Antimicrobial	Bohlmann *et al*., (1988)[22]
Hordeum vulgare	Pathogenesis-related protein 1A/1B, Pathogenesis-related protein 1C	Antimicrobial	Hahn *et al*., (1993)[106]
Hybanthus calycinus	Hyca A Cyclotide A (Fragment)	Antimicrobial	Simonsen *et al*., (2005)[326]
Hybanthus debilissimus	Hyde A	Antimicrobial	Simonsen *et al*., (2005)[326]

	Cyclotide A (Fragment)		
Hybanthus enneaspermus	Hyde A Cyclotide A (Fragment) Hyen B	Antimicrobial	Simonsen *et al*., (2005)[326]
Hybanthus epacroides	Hyde A Cyclotide A (Fragment) Hyen B Cyclotide B (Fragment)	Antimicrobial	Simonsen *et al*., (2005)[326]
Hybanthus floribundus	Cyclotide Hyfl A Cyclotide Hyfl B Cyclotide Hyfl C Cyclotide Hyfl D Cyclotide Hyfl E Cyclotide Hyfl F Cyclotide Hyfl I Cyclotide Hyfl J Cyclotide Hyfl M	Insecticidal, Antimicrobial	Simonsen *et al*., (2005)[326]
Hybanthus monopetalus	Hymo A Cyclotide A (Fragment) Hymo B Cyclotide B (Fragment)	Antimicrobial	Simonsen *et al*., (2005)[326]
Hybanthus parviflorus	Cyclotide hypa A	Antimicrobial	Broussalis *et al*., (2001)[27]
Hybanthus stellarioides	Hyst A Cyclotide A (Fragment)	Antimicrobial	Simonsen *et al*., (2005)[326]
Hybanthus vernonii	Cyclotide A (Fragment)	Antimicrobial	Simonsen *et al*., (2005)[326]
Hydrangea macrophylla	Chitin-binding protein HM30 (Fragment)	Antifungal	Yang & Gong, (2002)[419]
Impatiens balsamina	Basic peptide AMP4,Ib-AMP4	Antibacterial, Antifungal, Hemolytic, Cytotoxic	Tailor *et al*., (1997)[344]; Thevissen *et al*., (2005)[355]
Impatiens balsamina	Basic peptide AMP1-1, Ib-AMP1	Antibacterial, Antifungal	Tailor *et al*., (1997)[344]
Impatiens balsamina	Basic peptide AMP2,Ib-AMP2	Antifungal, Hemolytic, Cytotoxic	Tailor *et al*., (1997)[344]
Impatiens balsamina	Basic peptide AMP3,Ib-AMP3	Antifungal	Tailor *et al*., (1997)[344]
Impatiens balsamina	Ib-AMP4	Antibacterial, Hemolytic, Cytotoxic, Antifungal	(Gilevich *et al*., 1986; Fan *et al*., 2013; Patel *et al*., 1998; Tailor *et al*., 1997)
Impatiens balsamina	Ib-AMP1, Ib-AMP2, Ib-AMP3	Antimicrobial, Antibacterial, Antifungal	Patel *et al*., (1998)[275]; Tailor *et al*., (1997)[344]
Ipomoea batatas	Peptide IbACP	RALF-Rapid-alkalinization-factor	Chang *et al*., (2013)[38]
Ipomoea nil	Pn-AMP2	Antibacterial, Antifungal	Koo *et al*., (1998)[153]

	Pn-AMP1 PN-AMP1 PN-AMP2		
Jatropha curcas	Trypsin inhibitor 1 (JcTI-I)	Antibacterial	Turner, (2014)[364]
Jatropha curcas	curcacycline A	Immunosuppressive	van den Berg *et al*., (1995)[369]
Jatropha curcas	jatrophidin I	Protease-inhibitor	Altei *et al*., (2014)[3]
Jatropha curcas	curcacycline B	Immunosuppressive	Auvin *et al*., (1997)[11]
Jatropha curcas	JCpep7	Antibacterial, Antifungal	Kraszewska *et al*., (2016)[160]; Xiao *et al*., (2011)[415]
Jatropha curcas	Curcacycline A	Immunoregulator	van den Berg *et al*., (1995)[369]
Jatropha mahafalensis	mahafacyclin A	Antimalarial, Antiproliferative	Baraguey *et al*., (2000)[14]
Jatropha multifida	Labaditin	Immunomodulatory	Kosasi *et al*., (1989)[155]
Jatropha multifida	Labaditin	Antimicrobial, Antibacterial	Barbosa *et al*., (2016)[15]
Jatropha Podagrica	Podacycline B Podacycline A	Immunomodulatory	Berg *et al*., (1996)[18]
Jatropha pohliana	pohlianin C pohlianin A pohlianin B	Antiparasitic	Auvin-Guette *et al*., (1999)[10]
Jatropha ribifolia	ribifolin	Cytotoxic	Pinto *et al*., (2015)[284]
Juglans regia	Seed storage protein Legumin OS	ACE-inhibitor	Wang *et al*., (2018)[380]
Lagenaria luecantha Rusby var. Depressa makina, Luffa cylindrica	Trypsin inhibitor LLDTI-I	Enzyme-inhibitor	Matsuo *et al*., (1992)[206]
Lagenaria luecantha Rusby var. Gourda makina, Lagenaria siceraria	Protease inhibitor LLTI-III	Enzyme-inhibitor	Hayashi *et al*., (1994)[117]
Lagenaria luecantha Rusby var. Gourda makina, Lagenaria siceraria	Trypsin inhibitor LLTI-I Trypsin inhibitor LLTI-II Trypsin inhibitor LLTI-III	Enzyme-inhibitor	Takeshi, (1977)[346]
Lagenaria luecantha Rusby var. Gourda makina, Lagenaria siceraria	Protease inhibitor LLTI-III	Enzyme-inhibitor	Hayashi *et al*., (1994)[117]
Lens culinaris	Non-specific lipid-transfer protein 6 Non-specific lipid-transfer protein 4 Non-specific lipid-transfer protein 5 Non-specific lipid-transfer protein 2	Antibacterial	Finkina *et al*., (2007)[76]
Lens culinaris	Defensin Lc-def	Antibacterial, Antifungal	Finkina *et al*., (2008)[77]; Shenkarev *et al*., (2014)[321]

Lens culinaris	lentil peptides	ACE-inhibitor	García-Mora *et al*., (2017)[88]
Leonia cymosa	Cycloviolin D Cycloviolin A Cycloviolin C Cycloviolin B	Antimicrobial, Antiviral, Anti-HIV	Hallock *et al*., (2000)[108]
Leonurus heterophyllus	Cycloleonuripeptide E Cycloleonuripeptide F	Neuropeptide	Morita, Iizuka, *et al*., (2006)[225]
Leonurus japonicus	Cycloleonuripeptide D	Cyclooxygenase-inhibitor	Morita, Gonda, Takeya, Itokawa, & Iitaka, (1997)[223]
Leonurus japonicus	Cycloleonuripeptide B Cycloleonuripeptide A	Anticancer	García-Mora *et al*., (2017)[88]
Leonurus japonicus, Leonorus sibiricus	Cycloleonurinin	Immunosuppressive	Morita, Gonda, Takeya, Itokawa, Hirano, *et al*., (1997)[222]
Leptopetalum biflorum, Hedyotis biflora	Hedyotide B2	Antimicrobial, Enzymatic-degradation	Nguyen, Zhang, Wang, *et al*., (2011)[253]
Leptopetalum biflorum, Hedyotis biflora	Hedyotide B1	Antimicrobial, Enzymatic-degradation	Nguyen, Zhang, Wang, *et al*., (2011)[253]; Wong *et al*., (2011)[406]
Linum usitatissimum	Cyclolinopeptide G	Immunosuppressive	Matsumoto *et al*., (2001)[205]
Lippia sidoides	Putative antimicrobial peptide 2	Antifungal	Moreira *et al*., (2011)[219]
Luffa acutangula	Trypsin inhibitor LATI-I Trypsin inhibitor LATI-II	Enzyme-inhibitor	Haldar *et al*., (1996)[107]
Luffa aegyptiaca	Ribosome-inactivating protein luffacylin	Antifungal	Parkash *et al*., (2002)[274]
Luffa cylindrica	Trypsin inhibitor TGTI-II	Enzyme-inhibitor	Ling *et al*., (1993)[181]
Luffa cylindrica	Luffin P1c	Ribosome-inactivating	Li *et al*., (2003)[176]
Luffa cylindrica	Trypsin inhibitor TGTI-I	Enzyme-inhibitor	Ling *et al*., (1993)[181]
Luffa cylindrica	Protease inhibitor LCTI-III	Enzyme-inhibitor	Hayashi *et al*., (1994)[117]
Luffa cylindrica	Trypsin inhibitor LCTI-I Trypsin inhibitor LCTI-II	Enzyme-inhibitor	Hatakeyama *et al*., (1991)[115]
lycine max, Amaranthus hypochondriacus, Fagopyrum esculentum	Diffusable bitter peptide 2	Taste, Enzyme-inhibitor, Neuropeptide, Antihypertensive	Cavazos & Gonzalez de Mejia, (2013)[34]; Puchalska *et al*., (2015)[298]; Silva-Sánchez *et al*., (2008)[325]; Yano *et al*., (1996)[423]
Lycopersicon esculentum	gamma-Thionin-like peptide TPP3	Antimicrobial	Milligan & Gasser, (1995)[214]
Lycopersicon esculentum	Metallocarboxypeptidase inhibitor-37, MCPI-37	Enzyme-inhibitor	Hass & Hermodson, (1981)[114]; Martineau *et al*., (1991)[200]
Lycopersicon esculentum, Solanum chacoense	Putative Rapid alkalinization factor, RALF	RALF-Rapid-alkalinization-factor	Pearce *et al*., (2001)[277]
Macadamia integrifolia	Vicin-like antimicrobial peptide 2a Vicin-like antimicrobial peptide 2c-1	Antibacterial, Antifungal	Marcus *et al*., (1999)[198]

	Vicin-like antimicrobial peptide 2c-2 Vicin-like antimicrobial peptide 2c-3 MiAMP2d Vicilin-like Antimicrobial peptide 2c-1 / MiAMP2c-1		
Macadamia integrifolia	MiAMP1	Antibacterial, Antifungal, Antiyeast	Marcus *et al*., (1997)[197]; McManus *et al*., (1999)[208]
Maclura pomifera	peptide sequences-one, YQEPVLGPVRGPFPIIV, the other, RFFVAPFPE,	ACE-inhibitor	Corrons *et al*., (2017)[55]
Malus domestica	Thaumatin-like protein	Antimicrobial	Krebitz *et al*., (2003)[161]
Malva parviflora	Antifungal protein 1 small subunit Antifungal protein 2 large subunit Antifungal protein 2 small subunit Antifungal protein 1 large subunit Antifungal protein 4 Antifungal protein 5	Antifungal	Wang & Bunkers, (2000)[392]
Malva parviflora	Antifungal protein 3	Antifungal	Wang *et al*., (2001)[393]
Medicago sativa	MsDef1 (defensin 1.3)	Antifungal	Gao *et al*., (2000)[87]; Hanks *et al*., (2005)[110]; Sagaram *et al*., (2011)[309]; Spelbrink *et al*., (2004)[336]
Medicago sativa	Antifungal peptide	Antimicrobial, Antifungal	Gao *et al*., (2000)[87]
Melicytus chathamicus	Mech 1 Mech 2 Mech 3 Mech 4 Mech 5 Mech 6 Mech 7	Cytotoxic, Antibacterial Anticancer	Ravipati *et al*., (2015)[300]
Melicytus latifolius	Mela 1 Mela 2 Mela 3 Mela 4 Mela 5 Mela 6 Mela 7	Antibacterial, Anticancer, Cytotoxic	Ravipati *et al*., (2015)[300]
Mesembryanthemum crystallinum	Putative Rapid alkalinization factor, RALF	RALF-Rapid-alkalinization-factor	Pearce *et al*., (2001)[277]
Mesembryanthemum	Mc-AMP1	Antibacterial, Antifungal	Cammue *et al*., (1992)[29]; De Bolle *et al*., (1995)[64]

crystallinum			
Microtoena prainiana	Microtoenin C Microtoenin A Microtoenin B	ACE-inhibitor	Li *et al*., (2004)[175]
Mirabilis jalapa	Antimicrobial peptide 1, MJ-AMP1, AMP1	Antibacterial, Antifungal, Hemolytic, Cytotoxic	Cammue *et al*., (1992)[29]
Mirabilis jalapa	MJ-AMP2	Antibacterial, Antifungal, Hemolytic, Cytotoxic	Cammue *et al*., (1992)[29]; De Bolle *et al*., (1995)[64]; Gristwood, (1990)[100]; Kraszewska *et al*., (2016)[160]
Mirabilis jalapa	Trypsin inhibitor, MJTI I	Enzyme-inhibitor	Kowalska *et al*., (2007)[157]
Mirabilis jalapa	Antimicrobial peptide Mj-AMP1	Antimicrobial, Antibacterial, Antifungal	Cammue *et al*., (1992)[29]
Momordica charantia	Elastase inhibitor MCEI-IV Elastase inhibitor MCEI-III Trypsin inhibitor MCTI-III Elastase inhibitor MCEI-II	Enzyme-inhibitor	Hamato *et al*., (1995)[109]
Momordica charantia	Trypsin inhibitor MCTI-I	Enzyme-inhibitor	Hara *et al*., (1989)[111]
Momordica charantia	Inhibitor cystine knot peptide MCh-2 Inhibitor cystine knot peptide MCh-1	Enzyme-inhibitor	He *et al*., (2013)[120]
Momordica charantia	Protease inhibitor MCTI-III Protease inhibitor MCTI-I	Enzyme-inhibitor	He *et al*., (2013)[120]
Momordica cochinchinensis	McoTI-VII McoTI-IV McoTI-VIII McoTI-III McoTI-V McoTI-VI	Protease-inhibitor	Mylne *et al*., (2012)[237]
Momordica cochinchinensis	MCoTI-I, Two inhibitor peptide topologies 1 (21-54)	Antibacterial, Anticancer, Antifungal, Protease-inhibitor	Avrutina *et al*., (2005)[12]; Strömstedt *et al*., (2017)a[338]
Momordica cochinchinensis	Peptide MCo-6 Peptide MCo-3	Antimicrobial	Chan *et al*., (2013)[37]
Momordica cochinchinensis, Momordica macrophylla, Momordica sphaeroidea	MCoTI-II, Two inhibitor peptide topologies 2 (121-154)	Antibacterial, Anticancer, Antifungal	Heitz *et al*., (2001)[123]; Strömstedt *et al*., (2017)a[338]
Moringa oleifera	Morintides (mO2) Morintides (mO1) Chitin-binding protein 3	Antifungal	Kini *et al*., (2017)[150]
Morus alba	Germin-like protein	Antibacterial, Antifungal	Patnaik *et al*., (2012)[276]

Morus sp.	Hevein-like peptide 2 Hevein-like peptide 1	Antimicrobial, Antifungal	Wasano *et al*., (2009)[395]
Mucuna pruriens	peptide fraction (PF)	Antihypertensive, Antioxidant, Antithrombotic, Hypocholesterolemic	Herrera-Chalé *et al*., (2016)[126]
Nicotiana alata	Class I defensin, NaD2	Anticancer, Antifungal	Bleackley *et al*., (2016)[19]; Dracatos *et al*., (2014)[66]
Nicotiana alata	Flower-specific defensin / NaD1	Anticancer, Antifungal, Insecticidal	Bleackley *et al*., (2016)[19]; Dracatos *et al*., (2014)[66]; Hayes *et al*., (2013)[118]; Lay *et al*., (2003)[166]
Nicotiana attenuata	Fabatin-1	Antimicrobial	Weinhold *et al*., (2015)[396]
Nicotiana attenuata	Esculentin-1	Antimicrobial	Weinhold *et al*., (2015)[396]
Nicotiana attenuata	Spheniscin-2	Antibacterial, Antifungal	Weinhold *et al*., (2015)[396]
Nicotiana benthamiana	SP1-1	Antimicrobial	Zeitler *et al*., (2013)[434]
Nicotiana megalosiphon	NmDef02	Antifungal, Antimicrobial	Portieles *et al*., (2010)[291]
Nicotiana tabacum	Osmotin	Antimicrobial	Woloshuk *et al*., (1991)[405]
Nicotiana tabacum	Pathogenesis-related protein R minor form	Antimicrobial	Cornelissen *et al*., (1986)[54]
Nicotiana tabacum cv. Xanthi	Cecropin A-melittin hybrid	Antimicrobial	Yevtushenko *et al*., (2005)[427]
Nicotiana tabacum, Nicotiana attenuata, Solanum chacoense	Rapid alkalinization factor, RALF	RALF-Rapid-alkalinization-factor	Pearce *et al*., (2001)[277]
Nigella sativa	Defensin D2, Ns-D2 Defensin D1, Ns-D1	Antibacterial, Antifungal	Rogozhin *et al*., (2011)[305]
Nigella sativa	Non-specific lipid-transfer protein 1	Antifungal	Oshchepkova *et al*., (2009)[268]
Noisettia orchidiflora, Clitoria ternatea	NorA/ cliotide T55	Enzymatic-degradation, Antimicrobial	Bobey *et al*., (2018)[21]; Serra *et al*., (2016)[317]
Oldenlandia affinis	Cyclotide Oak10 (Fragment) Cyclotide Oak9 (Fragment) Cyclotide Oak8 (Fragment)	Antimicrobial	Mylne *et al*., (2010)[239]
Oldenlandia affinis	Kalata-B1 precursor	Antibacterial, Antifungal	Tam *et al*., (1999)[347]
Oldenlandia affinis	Kalata B6	Antimicrobial, Antiparasitic	Kamimori *et al*., (2005)[145]
Oldenlandia affinis	kalata B15 kalata B14 kalata B11	Antimicrobial, Insecticidal	M. R. R. Plan *et al*., (2007)[288]
Oldenlandia affinis	Kalata-B4	Antimicrobial, Insecticidal	Craik *et al*., (1999)[56]; Plan *et al*., (2007)[288]; Trabi & Craik, (2004)[361]
Olea europaea	ACE inhibitor from Olea europaea	ACE-inhibitor	Esteve *et al*., (2015)[72]
Olea europaea	Antioxidant peptide from Olea europaea	Antioxidant	Esteve *et al*., (2015)[72]
Opuntia streptacantha, Opuntia cardona	Trypsin inhibitor 2	Enzyme-inhibitor	Torres-Castillo *et al*., (2009)[360]

Oryza sativa subsp. Indica	Thionin	Antimicrobial	Experimental evidence at transcript level
Oryza sativa subsp. Japonica	Thaumatin-like protein	Antimicrobial	Experimental evidence at transcript level
Ostreococcus tauri	Histone chaperone involved in gene silencing, ISS	Chromatin-assembly-or-disassembly	McAdams, (2006)[207]
Pachyrhizus erosus	Defensin SPE10	Antimicrobial, Antifungal	Song *et al*., (2005)[334]
Palicourea condensata	Palicourein	Antiviral, Anti-HIV	Barry *et al*., (2004)[17]; Bokesch *et al*., (2001)[24]
Palicourea rigida	Parigidin-br1	Antibacterial, Insecticidal	Pinto *et al*., (2012)[286]
Panicum laxum	Panitide L2	Antimicrobial	Nguyen *et al*., (2013)[250]
Panicum laxum	Panitide L3, Panitide L7, Panitide L2, Panitide L5, Panitide L6, Panitide L4, Panitide L8, Panitide L1	Antimicrobial, Cytotoxic	Nguyen, Zhang, Nguyen, *et al*., (2011)[252]
Passiflora alata	Antifungal protein 1	Antifungal	Ribeiro *et al*., (2011)[303]
Passiflora edulis	Antifungal protein 1	Antifungal	Pelegrini *et al*., (2006)[281]
Pentadiplandra brazzeana	Brazzein	Antibacterial, Antifungal	Yount & Yeaman, (2004)[432]
Perilla frutescens	Tyr-Leu (YL) and Phe-Tyr (FY)	Antihypertensive, Antioxidant	J. Yang *et al*., (2018)[418]
Persea americana var. drymifolia	PaDef	Antimicrobial	Guzmán-Rodríguez *et al*., (2013)[104]
Petunia hybrida	Floral defensin-like protein 1 / PhD1	Antibacterial, Antifungal	Janssen *et al*., (2003)[139]; Lay *et al*., (2003)[166]
Petunia hybrida	Expression of defensive gene activator, PhHypSys III	Gene-expression-activator	Pearce *et al*., (2007)[278]
Petunia inflata, Petunia integrifolia	Gamma-thionin homolog PPT	Antimicrobial	Karunanandaa *et al*., (1994)[146]
Petunia x hybrida, Petunia axillaris	Phyb I	Insecticidal	Poth *et al*., (2012)[294]
Pharbitis nil	Antifungal peptide PN-AMP2 Antifungal peptide PN-AMP1 PN-AMP2 PN-AMP1	Antimicrobial, Antibacterial, Antifungal	Koo *et al*., (1998)[153]
Pharbitis nil	Antifungal peptide pnAMP-h1 Antifungal peptide pnAMP-h2	Antimicrobial, Antibacterial, Antifungal	Koo *et al*., (2002)[152]
Phaseolus aureus, Vigna radiata	Pa-LTP1	Antibacterial, Antifungal	Lin *et al*., (2005)[179]; Wang *et al*., (2004)[390]
Phaseolus coccineus	Coccinin	Antiviral, Anticancer, Antifungal, Hemolytic, Antiproliferative, HIV-1-reverse-transcriptase-inhibition	Guzmán-Rodríguez *et al*., (2015)[105]; Ngai & Ng, (2004)c[249]
Phaseolus limensis	Limyin	Antimicrobial, Anticancer, Antifungal	Hegedüs & Marx, (2013)[122]

Phaseolus lunatus, Phaseolus limensis	Defensin-like peptide, Limentin	Antimicrobial, Antibacterial, Antifungal	Wong & Ng, (2006)[408]
Phaseolus vulgaris	White cloud bean defensin	Antibacterial, Antiviral, Anticancer, Antifungal	Wong *et al*., (2006)[409]
Phaseolus vulgaris	PvD1	Antifungal	Games *et al*., (2008)[86]
Phaseolus vulgaris	PTA2c, pinto bean antifungal peptide, Defensin D1	Antiviral, Antifungal	Ye & Ng, (2001)[424]
Phaseolus vulgaris	ntifungal lectin PVAP	Antiviral, Anticancer, Antifungal	Xia & Ng, (2005)a[412]
Phaseolus vulgaris	gamma-glutamyl-cysteinyl-alanine	Taste	Dunkel *et al*., (2007)[67]
Phaseolus vulgaris	Defensin PvD1	Antimicrobial, Antifungal	Games *et al*., (2008)[86]
Phaseolus vulgaris	gamma-glutamyl-leucine	Taste, ACE-inhibitor	Dunkel *et al*., (2007)[67]; Gu & Wu, (2013)[101]
Phellodendron amurense	Glutatione S-transferase-activating peptide	Enzyme-inhibitor	Lee *et al*., (2006)[169]
Phleum pratense	phl p 4	Allergen	Fischer *et al*., (1996)[78]
Phoradendron liga	Ligatoxin-A	Antimicrobial	(Thunberg *et al*., 1982)
Phoradendron liga	Ligatoxin-B	Anticancer, Toxin	Guzmán-Rodríguez *et al*., (2015)[105]; Li *et al*., (2002)[177]
Phoradendron tomentosum	Phoratoxin	Antimicrobial, Toxin	(Mellstrand *et al*., 1974ab)
Phoradendron tomentosum	Phoratoxin C Phoratoxin E	Toxin	Johansson *et al*., (2003)[142]
Phoradendron tomentosum	VtB	Antifungal	Giudici *et al*., (2004)[97]
Phoradendron tomentosum	Phoratoxins B Phoratoxins C Phoratoxins E Phoratoxins A	Anticancer	Guzmán-Rodríguez *et al*., (2015)[105]
Phoradendron tomentosum	Phoratoxins D	Anticancer, Toxin	Johansson *et al*., (2003)[142]
Phyllostachys pubescens	Pp-AMP2, Pp-AMP1	Antimicrobial, Antibacterial, Antifungal	Fujimura *et al*., (2005)[83]
Phytolacca americana	Pa-AMP1 (PAFP-S)	Antibacterial, Antifungal	Liu *et al*., (2000)[189]; Shao *et al*., (1999)[318]
Phytolacca dioica	Diocin-1 Diocin-2 PD-L3-4 PD-L1-2 D-S2	Antimicrobial, Antibacterial, Immunomodulatory	Pizzo *et al*., (2015)[287]
Picea abies	Putative gamma-thionin	Antimicrobial	Sharma & Lönneborg, (1996)[319]
Picea sitchensis	Piceain 1, Piceain 2	Antibacterial, Antifungal, Nematocide	Liu *et al*., (2011)[188]
Pinus monticola	Thaumatin-like protein L4,	Antimicrobial	Liu *et al*., (2010)[184]

	Thaumatin-like protein S3, Thaumatin-like protein S2, Thaumatin-like protein L1, Thaumatin-like protein S1		
Pinus sylvestris	Defensin-2	Antifungal	(Koval'ova *et al*., 2008)
Pinus sylvestris	Antimicrobial peptide 4	Antimicrobial	Asiegbu *et al*., (2003)[5]
Pinus sylvestris	PsDef1	Antimicrobial, Antifungal	Kovaleva *et al*., (2009)[156]
Pinus sylvestris	p2	Antifungal, Antibacterial	Kovaleva *et al*., (2009)[156]
Pisum sativum	Ps-AFP1	Antifungal	Mandal *et al*., (2013)[196]
Pombalia calceolaria	Poca B, Poca A	Cytotoxic	Ciardiello *et al*., (2007)[48]
Populus tremula	Putative Rapid alkalinization factor, RALF	RALF-Rapid-alkalinization-factor	Pearce *et al*., (2001)[277]
Populus trichocarpa, Populus deltoides	Rapid alkalinization factor 2, RALF2 Rapid alkalinization factor 1, RALF1	RALF-Rapid-alkalinization-factor	Haruta & Constabel, (2003)[112]
Prosopis cineraria	15 assorted peptides	Antifungal	Solanki *et al*., (2018)[333]
Prunus cerasus	na	Antioxidant, Antihypertensive	García *et al*., (2015)[89]
Prunus cerasus	na	ACE-inhibitor	González-García *et al*., (2018)[98]
Prunus domestica	Pathogenesis related protein 5		El-kereamy *et al*., (2011)[69]
Prunus dulcis, Prunus amygdalus	ACE inhibitory peptide	ACE-inhibitor, Antihypertensive	R. L. Liu *et al*., (2016)[187]
Psammosilene tunicoides	Tunicyclin D, Tunicyclin C, Tunicyclin B	Antimicrobial, Antifungal	Tian *et al*., (2010)[359]
Pseudostellaria heterophylla	heterophyllin A, heterophyllin B	ACE-inhibitor	Ning-Hua *et al*., (1993)[257]
Psidium guajava	Pg-AMP1, Glycine-rich antimicrobial peptide Pg-AMP	Antibacterial, Antifungal	Pelegrini, Murad, *et al*., (2008)[280]
Psophocarpus tetragonolobus	ACE inhibitory peptide	ACE-inhibitor	Yea *et al*., (2014)[425]
Psychotria leptothyrsa	psyle F psyle D psyle B	Cytotoxic	Gerlach, Burman, *et al*., (2010)[92]
Psychotria leptothyrsa	Psyle C	Anticancer, Cytotoxic	Gerlach, Burman, *et al*., (2010)[92]
Psychotria leptothyrsa	Antimicrobial Seed Protein/AC34H	Antibacterial, Antifungal	Kraszewska *et al*., (2016)[160]; Liu *et al*., (2000)[189]
Psychotria leptothyrsa	Cyclotide psyle F	Cytotoxic	Gerlach, Burman, *et al*., (2010)[92]
Psychotria leptothyrsa	psyle C	Anticancer, Cytotoxic	Gerlach, Rathinakumar, *et al*., (2010)[93]
Psychotria longipes	Cyclopsychotride-A, CPT	Antibacterial, Antifungal, Hemolytic, Cytotoxic, Neurotensin-inhibitor	Tam *et al*., (1999)[347]
Psychotria solitudinum	Psysol 2	Enzymatic-degradation, Enzyme-inhibitor	Hellinger, Koehbach, Puigpinós, *et al*., (2015)[124]
Pyrularia pubera	Pp-thionin	Antibacterial, Antifungal	Vernon *et al*., (1985)[374]; Vila-Perelló *et al*., (2005)[377]

rachis diogoi, Cicer arietinum, Cajanus cajan, Trigonella foenum-graccum	Coccinin	Antifungal, Antiproliferative, HIV-1-reverse-transcriptase-inhibition	Ngai & Ng, (2004)c[249]
Raphanus sativus	Cysteine-rich antifungal protein 4, Rs-AFP4	Antifungal	Terras *et al*., (1995)[351]
Raphanus sativus	Defensin-like protein 4	Antifungal	Terras *et al*., (1995)[351]
Raphanus sativus	Defensin-like protein / 2 Rs-AFP2	Antibacterial, Antifungal	Osborn *et al*., (1995)[267]; Terras *et al*., (1992)[352]; (1993)[353]
Raphanus sativus	Rs-AFPl Rs-AFP2	Antifungal	Terras *et al*., (1993)[353]
Raphanus sativus var. niger	Raphanus Sativus Antifungal Protein 2	Antifungal	Terras *et al*., (1992)[352]
Raphanus sativus, Brassica napus, Brassica oleracea var. gemmifera, Brassica rapa	Defensin-like protein 3, Rs-AFP3, Br-AFP2, Bn-AFP1	Antimicrobial, Antifungal	Terras *et al*., (1995)[351]
Raphanus sativus, Sinapis alba, Brassica juncea, Brassica rapa subsp. pkinensis	Defensin-like protein 1 / Rs-AFP1	Antibacterial, Antifungal, Hemolytic, Cytotoxic	Terras *et al*., (1992)[352]; (1993)[353]
Rinorea dentata	riden A	Uterotonic-activity	Attah *et al*., (2016)[9]
Saccharum officinarum	Sugarcane defensin 5, Sd5, Sugarcane defensin 3, Sd3, Sugarcane defensin 1, Sd1	Antibacterial, Antifungal	De-Paula *et al*., (2008)[61]
Saccharum spp.	Rapid alkalinization factor sac-RALF1	RALF-Rapid-alkalinization-factor	Mingossi *et al*., (2010)[215]
Sambucus nigra	Hevein-like peptide SH-HLPf	Antimicrobial, Antifungal	Van Damme *et al*., (1999)[368]
Santalum album	Cyclosaplin	Anticancer, Hemolytic, Cytotoxic	Mishra *et al*., (2014)[216]
Secale cereale	Basic endochitinase C	Antifungal	Taira *et al*., (2002)[345]
Secale cereale, Triticum aestivum	ACE inhibitory peptide	ACE-inhibitor, Antihypertensive	Hu *et al*., (2011)[129]
Sechium edule	Trypsin inhibitor 5 Trypsin inhibitor 2b Trypsin inhibitor 2a	Enzyme-inhibitor	Laure *et al*., (2006)[165]
Sesamum indicum	Antimicrobial protein 2 (Si-AMP2) (Fragments)	Antibacterial	Maria-Neto *et al*., (2011)[199]
Sesamum indicum	Angiotensin I-converting enzyme inhibitor 6 Angiotensin I-converting enzyme inhibitor 3, SPP Angiotensin I-converting enzyme inhibitor	Enzyme-inhibitor, Antihypertensive	García *et al*., (2013)[90]; Puchalska *et al*., (2015)[298]; Umekawa *et al*., (2010)[366]

	1, SPP Angiotensin I-converting enzyme inhibitor 7		
Sesamum indicum	SPP, Angiotensin I-converting enzyme inhibitor 5	Antihypertensive, Enzyme-inhibitor, Neuropeptide	García *et al*., (2013)[90]; Puchalska *et al*., (2015)[298]; Umekawa *et al*., (2010)[366]
Sesamum indicum, Amaranthus hypochondriacus, Triticum aestivum, Zea mays	SPP, Angiotensin I-converting enzyme inhibitor 4, ACE inhibitory peptide	Antihypertensive, Enzyme-inhibitor, Neuropeptide	García *et al*., (2013)[90]; Hu *et al*., (2011)[129]; Miyoshi *et al*., (1991)[217]; Nogata *et al*., (2009)[259]; Puchalska *et al*., (2013)[297]; (2015)[298]; Umekawa *et al*., (2010)[366]; Yano *et al*., (1996)[423]
Sinapis alba	Cysteine-rich antifungal protein 2B	Antifungal	Neumann *et al*., (1996)[245]
Sinapis alba	Defensin-like protein 2A/Sa-AFP2	Antibacterial, Antifungal	Terras *et al*., (1993)[353]
Sinapis alba, Brassica hirta	Cysteine-rich antifungal protein 2 (Sa-AFP2)	Antifungal	Neumann *et al*., (1996)[245]; Terras *et al*., (1993)[353]
Solanum chacoense	Putative Rapid alkalinization factor 4, RALF1 Putative Rapid alkalinization factor 5, RALF1	RALF-Rapid-alkalinization-factor	Germain *et al*., (2005)[94]
Solanum chacoense	Putative Rapid alkalinization factor 1, RALF1 Putative Rapid alkalinization factor 3, RALF1	RALF-Rapid-alkalinization-factor	Germain *et al*., (2005)[94]
Solanum commersonii	Osmotin-like protein OSML13	Antimicrobial	Zhu *et al*., (1995)[440]
Solanum commersonii	Osmotin-like protein OSML81	Antimicrobial	Zhu *et al*., (1995)[439]; Zhu *et al*., (1995)[440]
Solanum lycopersicum, Lycopersicon esculentum	Glycine-rich	Antimicrobial	Showalter *et al*., (1991)[323]
Solanum nigrum	Osmotin-like protein	Antifungal	Jami *et al*., (2007)[138]
Sorghum bicolor	SIalpha1, SIalpha2	Antimicrobial, Antifungal	Bloch *et al*., (1998)[20]
Sorghum bicolor	Defensin-like protein 1 / SI alpha-1	Antifungal, Enzyme-inhibitor	Nitti *et al*., (1995)[258]; Osborn *et al*., (1995)[267]
Sorghum bicolor	F2-C, F2-E	Antioxidant	Agrawal *et al*., (2017)[2]
Sorghum vulgare, Sorghum bicolor	Inhibitor of insect alpha-amilase SIa-2, Inhibitor of insect alpha-amilase SIa-1, Inhibitor of insect alpha-amilase SIa-3	Enzyme-inhibitor	Jr & Richardson, (1991)[143]
Sorghum vulgare, Sorghum bicolor	alpha-Amylase inhibitor, SI alpha-2.1	Enzyme-inhibitor	Nitti *et al*., (1995)[258]
Sorghum vulgare, Sorghum bicolor	Putative Rapid alkalinization factor, RALF	RALF-Rapid-alkalinization-factor	Pearce *et al*., (2001)[277]
Spinacia oleracea	So-D6, Defensin D5, Defensin D1,	Antibacterial, Antifungal	Segura *et al*., (1998)[316]

	Defensin D6, Defensin D2, So-D2, Defensin D7, So-D7, So-D5		
Spinacia oleracea	Trypsin inhibitor, SOTI II, Trypsin inhibitor, SOTI III, Trypsin inhibitor, SOTI I	Enzyme-inhibitor	Kowalska *et al*., (2007)[157]
Spinacia oleracea cv. Matador	So-D1-7	Antibacterial, Antifungal	Segura *et al*., (1998)[316]
Steinchisma laxum	Panitide L1, Panitide L6, Panitide L4, Panitide L2	Antimicrobial	Nguyen *et al*., (2013)[250]
Steinchisma laxum	Linear Cyclotide Panitide L3, Linear Cyclotide Panitide L4, Linear Cyclotide Panitide L7, Linear Cyclotide Panitide L8	Antibacterial, Anticancer, Antifungal	Nguyen *et al*., (2013)[250]
Steinchisma laxum	Linear Cyclotide Panitide L2, Linear Cyclotide Panitide L1	Antibacterial, Antifungal	Nguyen *et al*., (2013)[250]
Stellaria dichotoma	dichotomin A, dichotomin B, dichotomin C, dichotomin D, dichotomin E	Cytotoxic, Cyclooxygenase-inhibitor	Morita *et al*., (1996)[227]
Stellaria dichotoma	dichotomin H	Cytotoxic, Cyclooxygenase-inhibitor	Morita, Takeya, & Itokawa, (1997)[231]
Stellaria dichotoma	dichotomin I	Cytotoxic, Cyclooxygenase-inhibitor	Morita, Takeya, & Itokawa, (1997)[231]
Stellaria dichotoma var. lanceolata	Dichotomin J Dichotomin K	Neuropeptide	Morita *et al*., (2005)[224]
Stellaria media	Antimicrobial peptide X precursor (Sm-AMP-X), Sm AMP3, Sm AMP-1.1a, Sm-AMP-X1, Sm-AMP-X2	Antifungal	Slavokhotova, Rogozhin, *et al*., (2014)[331]
Stellaria media	Sm-AMP-D1, Defensin Sm-AMP-D2	Antimicrobial, Antifungal	Slavokhotova *et al*., (2011)[330]
Stellaria yunnanensis	yunnanin A	Antiproliferative	Morita, Kayashita, Takeya, *et al*., (1997)[229]
Stellaria yunnanensis	pseudostellarin G	Tyrosinase-inhibitor	Morita, Kayashita, *et al*., (1995)[228]
Stellaria yunnanensis	yunnanin C	Antiproliferative	Napolitano *et al*., (2003)[243]
Stellaria yunnanensis	pseudostellarin D	Tyrosinase-inhibitor	Morita, Kayashita, *et al*., (1995)[228]
Stellaria yunnanensis	pseudostellarin B	Tyrosinase-and-melanin-inhibitor	Morita *et al*., (1994)[226]
Stellaria yunnanensis	pseudostellarin E	Tyrosinase-inhibitor	Morita, Kayashita, *et al*., (1995)[228]
Stellaria yunnanensis	pseudostellarin F	Tyrosinase-inhibitor	Morita, Kayashita, *et al*., (1995)[228]
Stellaria yunnanensis	pseudostellarin C	Tyrosinase-and-melanin-inhibitor	Morita *et al*., (1994)[226]
Stellaria yunnanensis	pseudostellarin H	Tyrosinase-inhibitor	Morita, Kayashita, *et al*., (1995)[228]
Taraxacum officinale	2S albumin	Antimicrobial	Odintsova *et al*., (2010)[264]
Taraxacum officinale	ToAMP4	Antibacterial, Antifungal	Astafieva *et al*., (2013)[6]

Taraxacum officinale	ToAMP3,ToAMP1,Antimicrobial peptide 2, ToAMP2	Antibacterial, Antifungal	Astafieva *et al*., (2012)[7]
Tephrosia villosa	TvD1 defensin	Antifungal	Vijayan *et al*., (2008)[376]
Terminalia chebula	Chebulin	Antihypertensive, ACE-inhibitor	Daskaya-Dikmen *et al*., (2017)[60]
Trapa natans	Antifungal peptide 1, Tn-AFP 1	Antifungal, Antimicrobial	Mandal *et al*., (2011)[195]
Treculia obovoidea	Anti-HIV peptide, Treculavirin	Antiviral	Bokesch *et al*., (2004)[23]
Trichosanthes kirilowii	Trypsin inhibitor TTI-I Trypsin inhibitor TTI-II	Enzyme-inhibitor	(Qian YW *et al*., 1990)
Trichosanthes kirilowii	Trypsin inhibitor	Enzyme-inhibitor	Tan *et al*., (1984)[348]
Triticum aestivum	Thaumatin-like protein PWIR2	Antimicrobial	Rebmann *et al*., (1991)[301]
Triticum aestivum cv. Maniton	Purothionin alpha2	Toxin, Antifungal	Castagnaro *et al*., (1994)[33]
Triticum aestivum, Aegilops tauschii	Thionin type V	Toxin	Castagnaro *et al*., (1992)[32]
Triticum aestivum, Aegilops tauschii x Triticum turgidum, Secale cereale, Aegilops tauschii, Aegilops tauschii var. meyeri, Aegilops ventricosa, Avena hirtula, Avena strigosa	Puroindoline-A, PINA	Antibacterial	Capparelli *et al*., (2005)[31]
Triticum aestivum, Olea europaea	Angiotensin I-converting enzyme inhibitor 16	Enzyme-inhibitor, Antioxidant	Esteve *et al*., (2015)[72]; Matsui *et al*., (1999)[203]
Triticum aestivum, Secale cereale, Hordeum vulgare	Gliadin	Immunomodulatory	Lammers *et al*., (2011)[164]
Triticum aestivum, Sesamum indicum	Angiotensin I-converting enzyme inhibitor 7, SPP- ACE inhibitory peptide	Enzyme-inhibitor, Antihypertensive, ACE-inhibitor	García *et al*., (2013)[90]; Lee & Hur, (2017)b[171]; Matsui *et al*., (1999)[203]; Puchalska *et al*., (2015)[298]; Ueno *et al*., (2005)[365]; Umekawa *et al*., (2010)[366]
Triticum dicoccum	Four peptides (VLPPQQQY, TVTSLDLPVLRW, VTSLDLPVLRW, FVPY)	Antioxidant	Babini *et al*., (2017)[13]
Triticum durum	Immunoregulator	Immunoregulator	Silano *et al*., (2007)[324]
Triticum kiharae	Chain A, Hevein-Type Antifungal Peptide With A Unique 10-Cysteine Motif	Antibacterial, Antifungal	Odintsova *et al*., (2009)[263]
Triticum kiharae	Defensin Tk-AMP-D1.1, Defensin Tk-AMP-D3, Defensin Tk-AMP-D6, Defensin Tk-AMP-D4, Defensin Tk-AMP-D5, Defensin Tk-AMP-D6.1, Defensin Tk-AMP-D2, Defensin Tk-	Antimicrobial, Antifungal	Odintsova *et al*., (2007)[261]

	AMP-D1		
Triticum kiharae, Triticum aestivum, Aegilops tauschii	Antimicrobial peptide 1a, WAMP-1a	Antibacterial, Antifungal	Odintsova *et al*., (2009)[263]
Triticum kiharae, Triticum aestivum, Aegilops tauschii, Triticum timopheevii	Tk-AMP-X1	Antifungal	Utkina *et al*., (2013)[367]
Triticum kiharae, Triticum aestivum, Triticum urartu, Triticum monococcum subsp. aegilopoides	Tk-AMP-X2	Antifungal	Utkina *et al*., (2013)[367]
Triticum kiharae, Triticum urartu	TK-AMP-D1.1/R46C	Antibacterial	Kraszewska *et al*., (2016)[160]
Triticum turgidum	gamma2-purothionin	Antimicrobial	Colilla *et al*., (1990)[51]
Tulipa gesneriana	Tu-AMP2 alpha chain, Tu-AMP2 beta chain, Tu-AMP1, Tu-AMP2	Antibacterial, Antifungal	Fujimura *et al*., (2004)[82]
Undaria pinnatifida	ACE inhibitor from wakame	Antihypertensive	Ketnawa & Rawdkuen, (2013)[147]
Undaria pinnatifida	Angiotensin I-converting enzyme inhibitor WH	Enzyme-inhibitor, Vasorelaxant	Suetsuna *et al*., (2004)[342]
Vaccaria hispanica	segetalin J segetalin L segetalin D segetalin A segetalin G segetalin B segetalin K	Estrogen-like-activity	Condie *et al*., (2011)[52]
Vaccaria hispanica	segetalin F	Vasorelaxant	Morita, Eda, *et al*., (2006)[221]
Vaccaria hispanica	segetalin C	Cytotoxic	Morita, Yun, *et al*., (1995)[232]
Vaccaria hispanica	segetalin E	Cytotoxic	Morita, Yun, *et al*., (1995)[232]
Vaccaria segetalis	Segetalin G	Hormone	Yun *et al*., (1997)[433]
Veronica hederifolia	Trypsin inhibitor VhTI	Enzyme-inhibitor	Conners *et al*., (2007)[53]
Vicia faba	Fabatin-2 Fabatin-1	Antibacterial	Kraszewska *et al*., (2016)[160]; Y. Zhang & Lewis, (1997)[437]
Vigna angularis	Va defensin 1 VaD1	Antibacterial, Antifungal	Chen *et al*., (2005)[42]
Vigna radiata var. radiata	Nonspecific lipid-transfer protein 1	Antibacterial, Antifungal	Wang *et al*., (2004)[390]
Vigna radiata, Vigna nakashimae	Plant defensin VrD1	Antimicrobial, Antibacterial, Antifungal, Insecticidal, Alpha-amylase-inhibitor	Chen *et al*., (2005)[42]; Chen *et al*., (2004)[43]; Chen *et al*., (2002)[44]; Sanchez, (2013)[313]

Vigna unguiculata	Cp-thionin-2, Defensin-like protein 2	Antibacterial	Franco *et al*., (2006)[79]; Kraszewska *et al*., (2016)[160]
Vigna unguiculata	VuD1	Antimicrobial, Enzyme-inhibitor	Pelegrini, Lay, *et al*., (2008)[279]
Vigna unguiculata	Thionin, Cp-Thionin	Enzyme-inhibitor	Melo *et al*., (2002)[211]
Vigna unguiculata	Coccinin	Antifungal, Antiproliferative, HIV-1-reverse-transcriptase-inhibition	Ngai & Ng, (2004)c[249]
Vigna unguiculata	pSAS10	Antifungal, Antimicrobial, Development-regulator	Ishibashi *et al*., (1990)[135]
Vigna unguiculata subsp.sesquipedalis	Sesquin	Antibacterial, Antifungal, Antiviral, Anti-HIV, Anticancer	Jack & Tzi, (2005)[137]
Vincetoxicum mongolicum	Thaumatin-like protein	Antimicrobial	Wang *et al*., (2012)[389]
Viola abyssinica	vaby B	Cytotoxic	Yeshak *et al*., (2011)[426]
Viola abyssinica	Vaby A	Anticancer, Antimicrobial, Cytotoxic	Pränting *et al*., (2010)[296]; Yeshak *et al*., (2011)[426]
Viola abyssinica	Vaby D	Antibacterial, Antifungal, Cytotoxic	Prabhu *et al*., (2013)[295]; Pränting *et al*., (2010)[296]; Yeshak *et al*., (2011)[426]
Viola arvensis, Viola biflora, Viola tricolor	Vitri peptide A	Anticancer, Antimicrobial, Cytotoxic	Herrmann *et al*., (2008)[127]; Svangård *et al*., (2004)[343]; Tang *et al*., (2010)[349]
Viola arvensis, Viola tricolor	Varv peptide B Varv peptide C Varv peptide G	Antimicrobial, Enzymatic-degradation	Göransson *et al*., (1999)[99]; Hellinger, Koehbach, Soltis, *et al*., (2015)[125]
Viola arvensis, Viola tricolor	Varv He, Varv peptide H	Anticancer	Tang *et al*., (2010)[349]
Viola arvensis, Viola tricolor	Tricyclon-A	Antibacterial, Anticancer, Antifungal, Antiviral, Hemolytic, Antimicrobial	Hellinger, Koehbach, Soltis, *et al*., (2015)[125]; Mulvenna, Sando, *et al*., (2005)[235]; Strömstedt *et al*., (2017)a[338]
Viola arvensis, Viola tricolor	Varv peptide D Varv peptide H	Anticancer, Antimicrobial, Enzymatic-degradation	Göransson *et al*., (1999)[99]; Hellinger, Koehbach, Soltis, *et al*., (2015)[125]; Tang *et al*., (2010)[349]
Viola biflora	vibi I vibi K vibi A vibi J vibi F	Cytotoxic, Antimicrobial	Herrmann *et al*., (2008)[127]
Viola biflora, Gloeospermum pauciflorum	vibi E	Anticancer, Antimicrobial	Herrmann *et al*., (2008)[127]
Viola biflora, Palicourea tetragona	vibi B	Cytotoxic, Antimicrobial	Herrmann *et al*., (2008)[127]
Viola biflora, Psychotria leptothyrsa	Vibi H	Anticancer, Antimicrobial	Herrmann *et al*., (2008)[127]
Viola hederacea	Leaf cyclotide, Vhl-1	Antibacterial, Antiviral, Antifungal	Chen *et al*., (2005)[40]

Viola hederacea	cycloviolacin H4	Hemolytic, Antimicrobial	Chen *et al*., (2006)[41]
Viola hederacea	Vhl-1	Antiviral, Antimicrobial	Chen *et al*., (2005)[40]
Viola hederacea	Vhl-2	Antiviral, Anti-HIV, Anticancer	Chen *et al*., (2005)[40]
Viola hederacea	Cycloviolacin H3	Antimicrobial, Nematocide, Antiviral	Chen *et al*., (2005)[40]; Colgrave, Kotze, Ireland, *et al*., (2008)[50]; M. R. Plan *et al*., (2010)[290]
Viola hederacea	Cycloviolacin H2	Antimicrobial, Anti-HIV, Antiviral	Chen *et al*., (2005)[40]
Viola hederacea, Oldenlandia affinis	Kalata B7	Antibacterial, Anticancer, Antifungal, Nematocide, Molluscicidal, Metal-binding, Membrane-Binding, Antiparasitic, Hemolytic, Antimicrobial	Colgrave, Kotze, Huang, *et al*., (2008)[49]; Jennings *et al*., (2001)[140]; Plan *et al*., (2010)[290]; Plan *et al*., (2007)[288]; (2008)[289]; Shenkarev *et al*., (2008)[322]; Strömstedt *et al*., (2017)b[339]
Viola hederacea, Oldenlandia affinis	Kalata B6	Nematocide, Molluscicidal, Membrane-Binding, Antimicrobial, Hemolytic	Dutton *et al*., (2004)[68]; Jennings *et al*., (2001)[140]; Plan *et al*., (2010)[290]; Plan *et al*., (2007)[288]
Viola hederacea, Oldenlandia affinis	Kalata-B4	Antimicrobial, Insecticidal	Craik *et al*., (1999)[56]; Plan *et al*., (2007)[288]; Trabi & Craik, (2004)[361]
Viola hederacea, Viola tricolor	Cycloviolacin-H1	Antimicrobial	Craik *et al*., (1999)[56]
Viola odorata	Cycloviolacin-O6 Cycloviolacin-O10	Antimicrobial	Craik *et al*., (1999)[56]; Ireland, Colgrave, & Craik, (2006)[133]
Viola odorata	Cycloviolacin O18 Cycloviolacin O20 Cycloviolacin O17 Cycloviolacin O16	Antimicrobial, Insecticidal, Enzymatic-digestion	Ireland, Colgrave, & Craik, (2006)[133]
Viola odorata, Psychotria leptothyrsa	Violacin A	Antimicrobial, Enzymatic-digestion, Hemolytic	Ireland, Colgrave, Nguyencong, *et al*., (2006)[134]
Viola odorata, Viola adunca	cycloviolacin O8	Nematocide, Antimicrobial	Colgrave, Kotze, Ireland, *et al*., (2008)[50]; Craik *et al*., (1999)[56]; Dutton *et al*., (2004)[68]; Ireland, Colgrave, & Craik, (2006)[133]
Viola odorata, Viola tricolor, Palicourea tetragona	cycloviolacin O22	Insecticidal, Enzymatic-digestion, Antibacterial, Antifungal, Antiviral	Hellinger, Koehbach, Soltis, *et al*., (2015)[125]; Ireland, Colgrave, & Craik, (2006)[133]
Viola odorata, Viola tricolor, Pombalia calceolaria	Cycloviolacin-O4	Antimicrobial, Anticancer	Craik *et al*., (1999)[56]; Ireland, Colgrave, & Craik, (2006)[133]; Pinto *et al*., (2018)[285]
Viola philippica	Mram 8	Antimicrobial	He *et al*., (2011)[121]
Viola philippica	viphi H viphi C viphi B	Cytotoxic	He *et al*., (2011)[121]

	Viphi G		
Viola philippica	Viphi D Viphi E	Anticancer, Antimicrobial, Cytotoxic	He *et al*., (2011)[121]
Viola philippica, Viola yedoensis	Cycloviolacin Y2	Antiviral, Insecticidal, Anti-HIV	Wang *et al*., (2019)[379]
Viola tricolor, Melicytus ramiflorus, Viola philippica	Mra30	Cytotoxic, Enzymatic-degradation, Antimicrobial, Anticancer	He *et al*., (2011)[121]; Hellinger, Koehbach, Soltis, *et al*., (2015)[125]; Trabi *et al*., (2009)[362]
Viola tricolor, Viola abyssinica	vaby C vaby E	Cytotoxic, Antimicrobial	Hellinger, Koehbach, Soltis, *et al*., (2015)[125]; Yeshak *et al*., (2011)[426]
Viola tricolor, Viola arvensis, Viola baoshanensis, Viola yedoensis, Viola tianshanica, Viola abyssinica, Viola philippica	Varv peptide E (Cycloviolacin-O12)	Antiviral, Anticancer, Nematocide, Anti-HIV	Colgrave, Kotze, Ireland, *et al*., (2008)[50]; Göransson *et al*., (1999)[99]; Svangård *et al*., (2004)[343]; Tang *et al*., (2010)[349]; C. K. L. Wang *et al*., (2019)[379]
Viola tricolor, Viola baoshanensis, Viola philippica	Viba 11	Antimicrobial	Hellinger, Koehbach, Soltis, *et al*., (2015)[125]; J. Zhang *et al*., (2009)[436]
Viola tricolor, Viola biflora	vibi C	Cytotoxic, Antimicrobial	Herrmann *et al*., (2008)[127]
Viola tricolor, Viola biflora, Psychotria leptothyrsa	Vibi G	Anticancer, Antimicrobial	Herrmann *et al*., (2008)[127]
Viola tricolor, Viola ignobilis	Vigno 3 Vigno 4 Vigno 6 Vigno 7 Vigno 9 Viba 10 Vigno 10	Antimicrobial	Hashempour *et al*., (2013)[113]; Hellinger, Koehbach, Soltis, *et al*., (2015)[125]
Viola tricolor, Viola ignobilis	Vigno 5	Anticancer, Antimicrobial, Cytotoxic	Esmaeili *et al*., (2016)[71]; Hashempour *et al*., (2013)[113]; Hellinger, Koehbach, Soltis, *et al*., (2015)[125]
Viola yedoensis	cycloviolacin Y3	Insecticidal, Anti-HIV, Antiviral	Wang *et al*., (2019)[379]
Viola yedoensis	cycloviolacin Y1 Cycloviolacin Y4	Nematocide, Hemolytic, Anti-HIV, Antiviral	Colgrave, Kotze, Ireland, *et al*., (2008)[50]; Wang *et al*., (2019)[379]
Viscum album	Viscotoxin A3	Toxin	Samuelsson *et al*., (1968)[312]; Samuelsson & Pettersson, (1971)[311]; SCHRADER & APEL, (1991)[315]
Viscum album	Viscotoxin B	Toxin	Olson & Samuelsson, (1972)[265]
Viscum album	Viscotoxin A2	Toxin	Olson & Samuelsson, (1972)[265]
Viscum album	Viscotoxins 1-PS, A1, A2, A3, and B	Anticancer	Guzmán-Rodríguez *et al*., (2015)[105]; Nakamura &

			Tsuya, (1979)[242]
Viscum coloratum	Viscotoxin B2	Anticancer, Antimicrobial	Nakamura & Tsuya, (1979)[242]
Vitis cinerea var. helleri x Vitis riparia	Thaumatin-like protein	Antimicrobial	Perazzolli *et al*., (2010)[282]
Vitis cinerea var. helleri x Vitis riparia	Phase change-related protein	Antifungal	Perazzolli *et al*., (2010)[282]
Wasabia japonica	WjAMP-1	Antimicrobial, Antifungal	Kiba *et al*., (2003)[148]; Prabhu *et al*., (2013)[295]
Xanthosoma sagittifolium	Kunitz-type serine protease inhibitor 1	Antibacterial	Lima *et al*., (2011)[178]
Zea mays	thirty-six peptides, including 5 dipeptides, 14 tripeptides, 9 tetrapeptides, 5 pentapeptides, and 3 hexapeptides	Antihypertensive	Yano *et al*., (1996)[423]
Zea mays, Saccharum spp.	Putative Rapid alkalinization factor, RALF	RALF-Rapid-alkalinization-factor	Pearce *et al*., (2001)[277]
Ziziphus jujuba	Snakin-Z	Antibacterial, Antifungal, Antioxidant, Enzyme-inhibitor	Daneshmand *et al*., (2013)[59]

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