

Figure S1 Locations of the 34 genes encoding antimicrobial peptides in chromosome

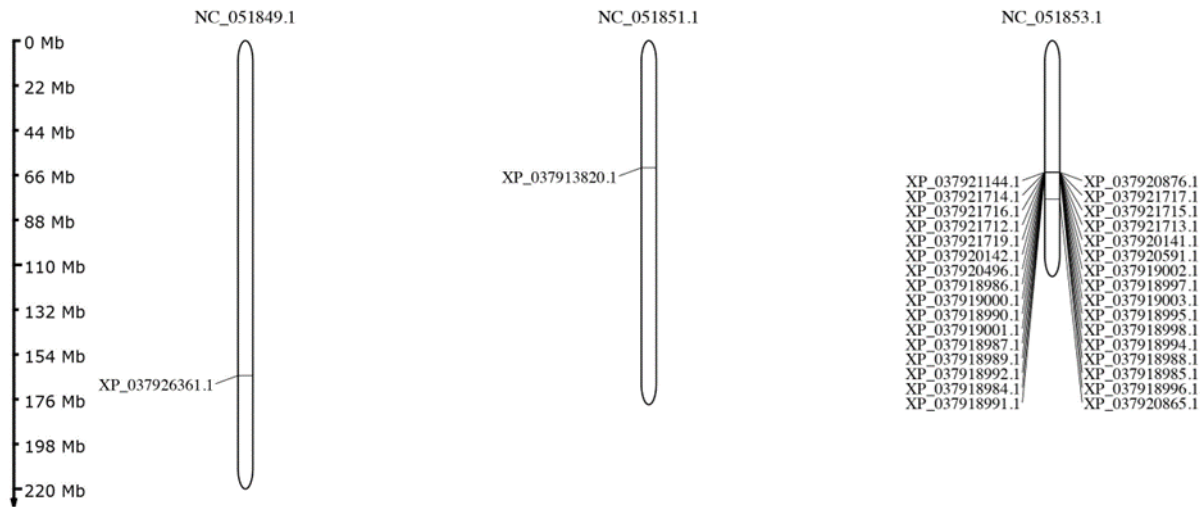
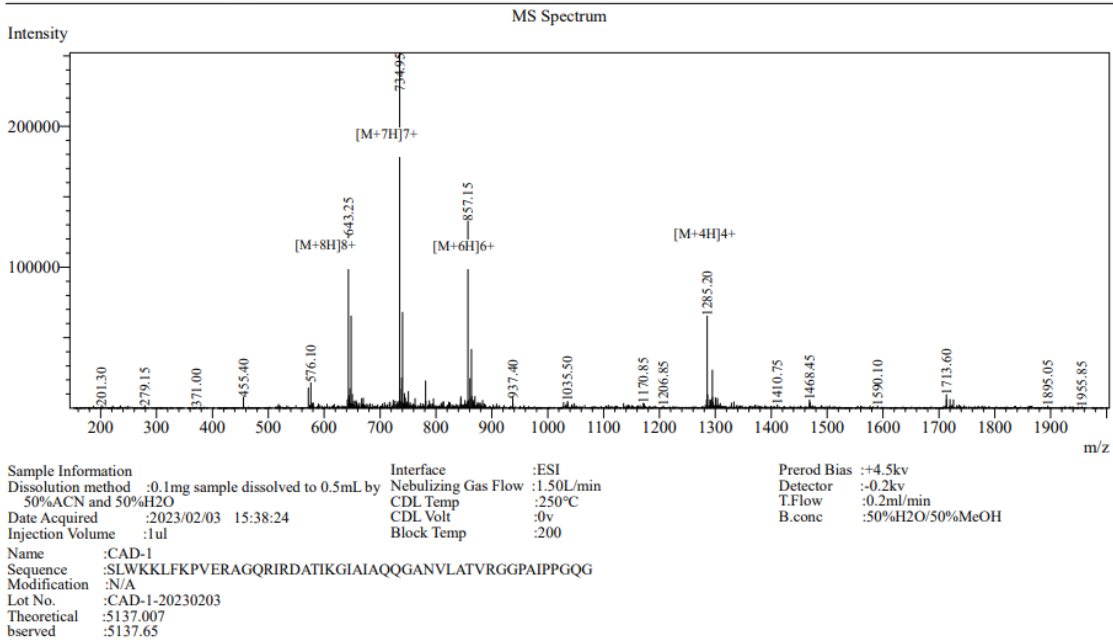


Figure S2 Mass spectrogram results of seven synthesized CAD peptides

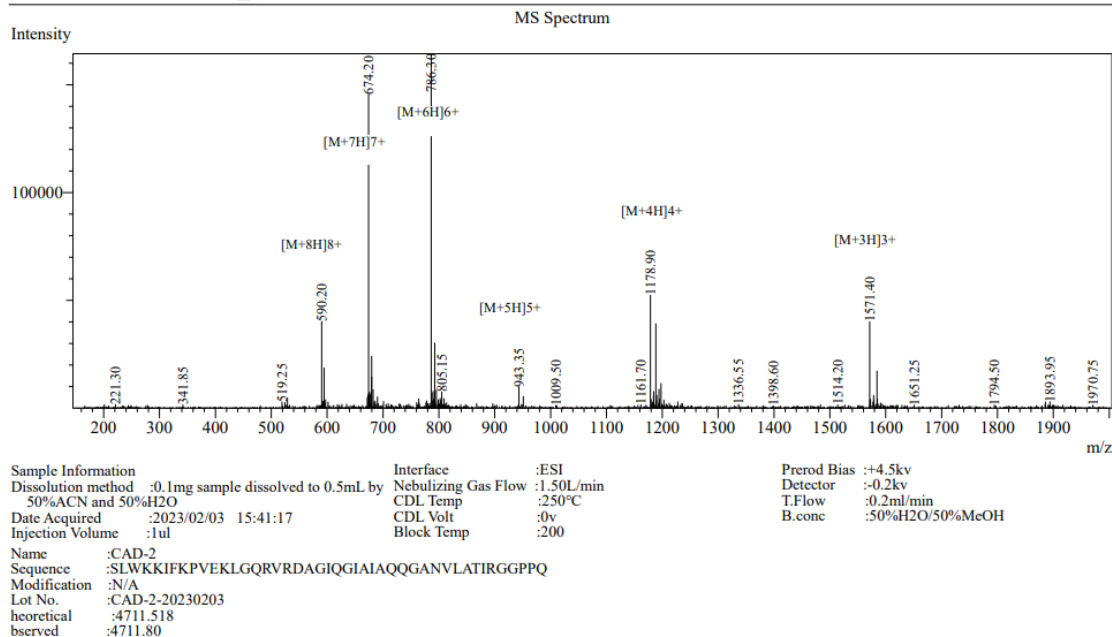
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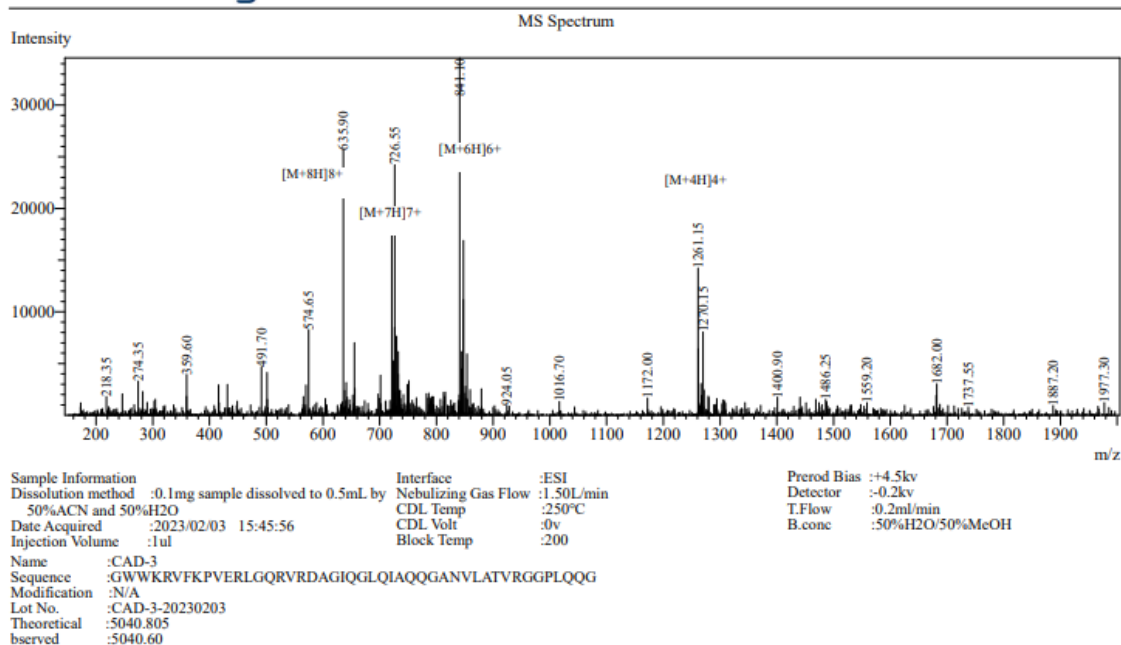
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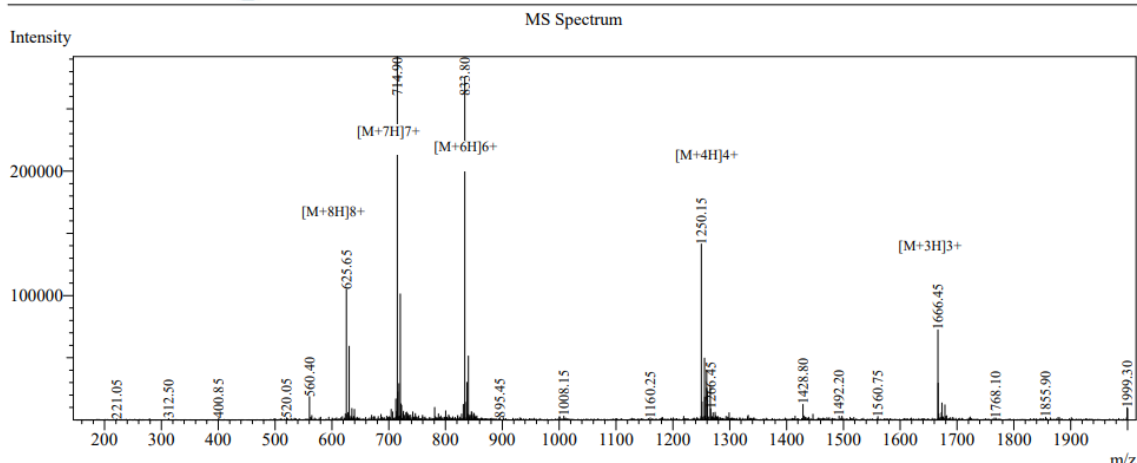
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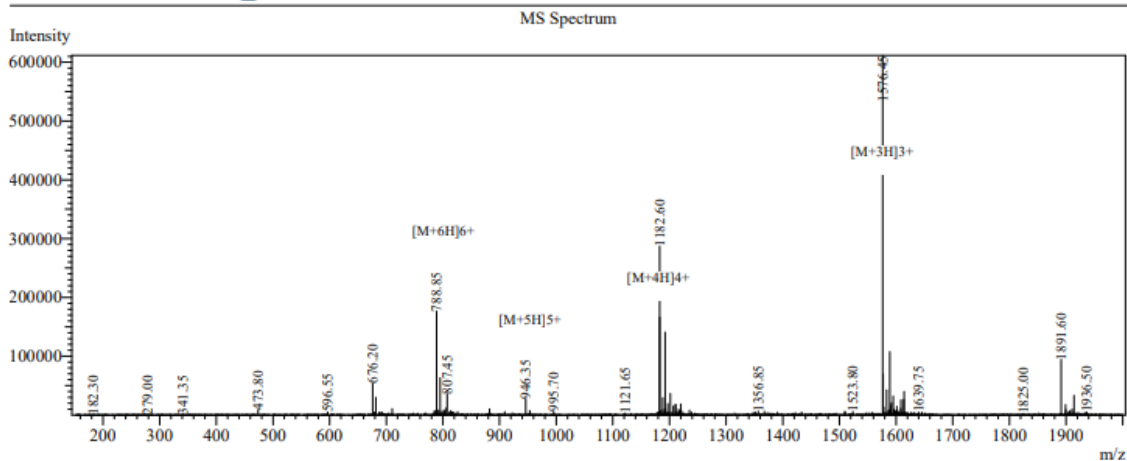
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Sample Information		Interface	:ESI	Prerod Bias	:+4.5kv
Dissolution method		:0.1mg sample dissolved to 0.5mL by	Nebulizing Gas Flow	:1.50L/min	Detector
50%ACN and 50%H2O			CDL Temp	:250°C	T.Flow
Date Acquired		:2023/02/03 15:55:36	CDL Volt	:0v	B.conc
Injection Volume		:1ul	Block Temp	:200	:50%H2O/50%MeOH
Name :CAD-7					
Sequence :GWWKRVFKPVEKLGQRVRDAGIQGLQIAQQGANVLATVRGGPPQQG					
Modification :N/A					
Lot No. :CAD-7-20230203					
Theoretical :4996.744					
bserved :4997.20					

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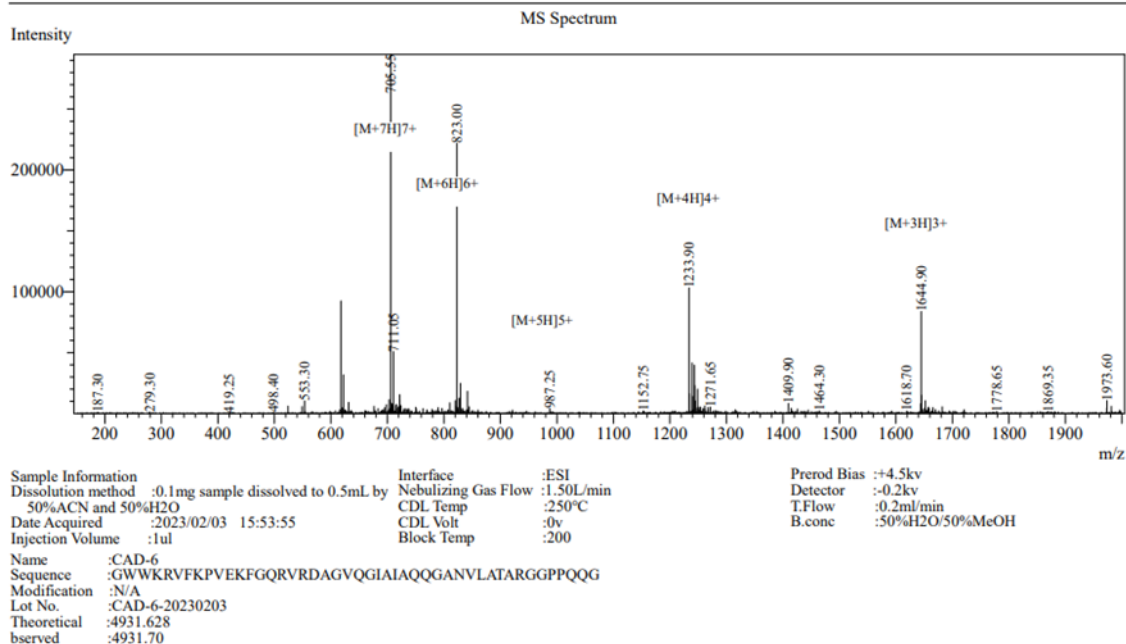
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Sample Information		Interface	:ESI	Prerod Bias	:+4.5kv
Dissolution method		:0.1mg sample dissolved to 0.5mL by	Nebulizing Gas Flow	:1.50L/min	Detector
50%ACN and 50%H2O			CDL Temp	:250°C	T.Flow
Date Acquired		:2023/02/03 15:50:16	CDL Volt	:0v	B.conc
Injection Volume		:1ul	Block Temp	:200	:50%H2O/50%MeOH
Name :CAD-5					
Sequence :GWWKRVFKPVEKLGQRVRDAGIQGLQIAQQGANVLATVRGGPPQ					
Modification :N/A					
Lot No. :CAD-5-20230203					
heoretical :4726.491					
bserved :4726.35					

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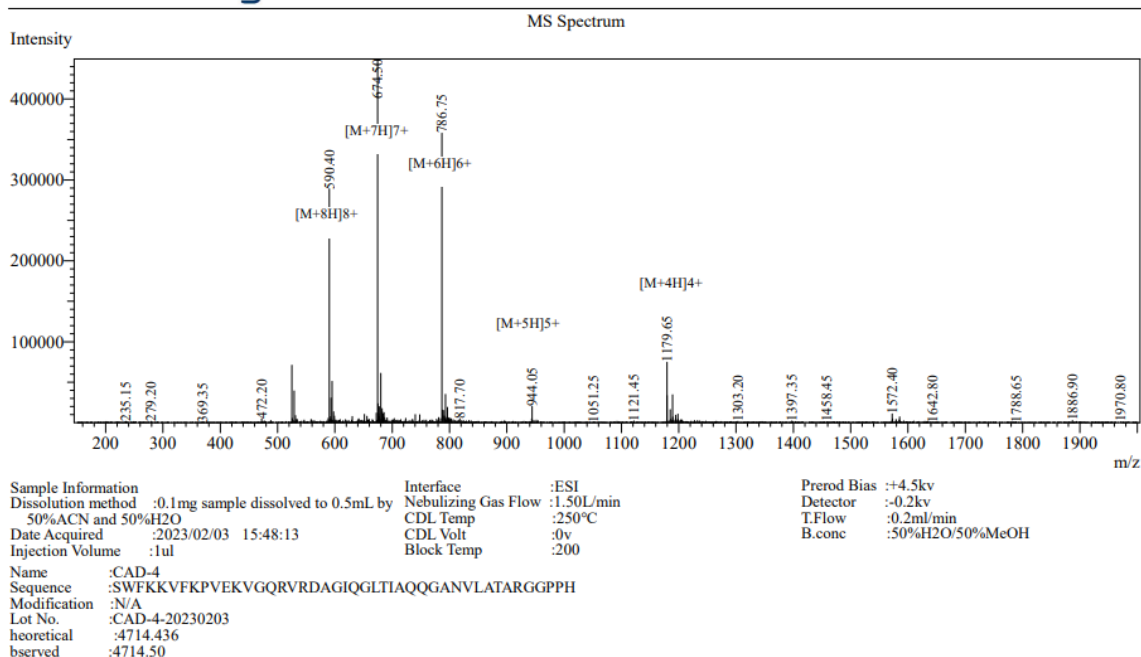
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Table S1 The Rename of the BSF AMPs.

GenBank	Sequence	Rename
XP 037921713.1	SLWKKLFPVERAGQRIRDATIKGIAIAQQGANVLATVRGGPAIPPGQG	CAD1
XP 037921717.1	SLWKKIFKPVEKLGQRVRDAGIQGIAIAQQGANVLATIRGGPPQ	CAD2
XP 037918997.1	GWWKRVFKPVERLGQRVRDAGIQGLQIAQQGANVLATVRGGPLQQG	CAD3
XP 037920142.1	SWFKKVFKPVEKVGQRVRDAGIQGLTIAQQGANVLATARGGPPH	CAD4
XP 037920591.1	GWWKKVFKPVEKLGQRVRDAGIQGIAIAQQGANVLATVRGGPPQ	CAD5
XP 037918984.1	GWWKRVFKPVEKFGQRVRDAGVQGIAIAQQGANVLATARGGPPQQG	CAD6
XP 037918991.1	GWWKRVFKPVEKLGQRVRDAGIQGLQIAQQGANVLATVRGGPPQQG	CAD7

Table S2 Basic characterization data of seven mature CAD peptides

Name	Number of amino acids	Molecular weight	Theoretical pI	Hydrophilicity
CAD1	49	5.137 KDa	11.58	hydrophobic
CAD2	44	4.711 KDa	11.07	hydrophobic
CAD3	46	5.04 KDa	11.83	hydrophobic
CAD4	44	4.714 KDa	11.07	hydrophobic
CAD5	44	4.726 KDa	11.07	hydrophobic
CAD6	46	4.931 KDa	11.57	hydrophobic
CAD7	46	4.996 KDa	11.57	hydrophobic

Table S3 Oligonucleotide sequences used in this study

Primer Name	Primer Sequence (5'→3')	Primer length (bp)
Actin-F	CAACGAGCGATTCAAGGTGTCC	21
Actin-R	GAGTGCGGTGATTCCTTCTGC	22
CAD1-F	ATGAATTTCTCAAAGCTTCTCATCG	25
CAD1-R	TTATCCTTGTCCGGGGGAATTGCT	25
CAD5-F	ATGAATTTCACTAAACTTTTGTG	25
CAD5-R	TTATTGTGGTGGTCCACCTCGAACC	25
CAD7-F	ATGAACTTCACAAAGCTTTTCGTCAT	26
CAD7-R	TTATCCTTGTGGGGTGGTCCACCT	25
Actin-qRT-F	CAACGAGCGATTCAAGGTGT	19
Actin-qRT-R	GAGTGCGGTGATTCCTTCT	20
CAD1-qRT-F	ATGAATTTCTCAAAGCTTC	19
CAD1-qRT-R	TTATCCTTGTCCGGGGGAA	20
CAD2-qRT-F	ATGAACCTTCACAAAGCTTT	19
CAD2-qRT-R	TTATTGTGGTGGGCCTCCTC	20
CAD5-qRT-F	ATGAATTTCACTAAACTTT	19
CAD5-qRT-R	TTATTGTGGTGGTCCACCTC	20
CAD3-qRT-F	ATGAATTCGCAAAGCTTT	20
CAD3-qRT-R	TTATCCTTGTGGAGTGGTC	20
CAD7-qRT-F	ATGAACCTTCACAAAGCTTT	19
CAD7-qRT-R	TTATCCTTGTGGGGTGGTC	20

Table S4 Amino acid sequence of CAD-Con.

GWKKVFKPVEKLGQRVRDAGIQGIAIAQQGANVLATVRGGPPQGWKRVFKPVEKLGQRVRDAGI
QGLQIAQQGANVLATVRGGPPQQGSLWKKLFKPVERAGQRIRDATIKGIAIAQQGANVLATVRGGPAIP
PGQG
