

1	ATG	GCT	TTT	GTT	TCT	TTA	CTT	ACC	ATT	CTT	CTT	GCA	ATC	TCC	TCC	TCC	TCT	GTT	GCC	CTC
1▶	M	A	F	V	S	L	L	T	I	L	L	A	I	S	S	S	S	V	A	L
61	ACT	GAG	CCA	GTA	GCC	AGT	ATG	GCC	GAT	CAA	GGA	GTT	TTT	CCT	GAA	CAG	CAT	GGC	CGA	GGG
21▶	T	E	P	V	A	S	M	A	D	Q	G	V	F	P	E	Q	H	G	R	G
121	CAC	CAT	GGA	GTT	TTT	CCC	GAA	GAG	CAT	GGG	CGA	GGG	CAC	CAC	AGA	GGG	GGG	CGA	GAA	GAA
41▶	H	H	G	V	F	P	E	E	H	G	R	G	H	H	R	G	G	R	E	E
181	GAG	CGA	GAG	GAG	AAT	CCA	TAC	GTA	TTC	CAC	AGT	GAC	AGA	TTC	AGG	ATC	AGA	GCA	TCA	TCT
61▶	E	R	E	E	N	P	Y	V	F	H	S	D	R	F	R	I	R	A	S	S
241	GAG	GCT	GGT	GAA	ATC	AGA	GCT	CTG	CCG	AAC	TTT	GGG	GAG	GTC	TCT	GAA	CTT	CTT	GAA	GGG
81▶	E	A	G	E	I	R	A	L	P	N	F	G	E	V	S	E	L	L	E	G
301	ATT	AGT	CGA	TAC	AGA	GTT	ACC	TGC	ATT	GAA	ATG	AAA	CCC	AAC	ACG	GTC	ATG	CTC	CCT	CAC
101▶	I	S	R	Y	R	V	T	C	I	E	M	K	P	N	T	V	M	L	P	H
361	TAT	ATT	GAT	GCC	AAA	TGG	ATT	TTA	TAT	GTT	ACT	GGA	GGA	AGA	GGT	TAC	ATA	GCT	TAC	GTG
121▶	Y	I	D	A	K	W	I	L	Y	V	T	G	G	R	G	Y	I	A	Y	V
421	CAG	CAG	AAT	GAA	CTG	GTG	AAA	AGA	AAG	TTG	GAG	GAA	GGA	GAT	GTA	TTT	GGT	GTT	CCA	AGT
141▶	Q	Q	N	E	L	V	K	R	K	L	E	E	G	D	V	F	G	V	P	S
481	GGT	CAT	ACA	TTT	TAT	CTC	GTT	AAC	AAC	GAT	GAC	CAC	AAC	AGC	CTT	CGC	ATT	GCC	AGT	CTC
161▶	G	H	T	F	Y	L	V	N	N	D	D	H	N	S	L	R	I	A	S	L
541	CTG	CGT	ACT	GAG	TCT	ACG	ATG	CGG	GGA	GAA	TAT	GAG	CCC	TTC	TAC	GTT	GCG	GGA	GGT	CGG
181▶	L	R	T	E	S	T	M	R	G	E	Y	E	P	F	Y	V	A	G	G	R
601	AAT	CCT	GAG	ACT	GTT	TAC	TCT	GCC	TTC	AGC	GAT	GAT	GTT	CTC	GAG	GCT	GCA	TTC	AAT	ACG
201▶	N	P	E	T	V	Y	S	A	F	S	D	D	V	L	E	A	A	F	N	T
661	GAC	GTA	CAG	AAG	CTT	GAA	CAT	ATT	TTC	GGT	GCA	CAC	AGA	AGG	GGA	GTC	ATA	TTC	TAC	GCA
221▶	D	V	Q	K	L	E	H	I	F	G	A	H	R	R	G	V	I	F	Y	A
721	AAT	GAA	GAA	CAA	ATT	AGA	GAA	ATG	ATG	AGG	AGA	GGG	GGA	TTT	TCA	GCA	GAA	TCC	ACG	TCT
241▶	N	E	E	Q	I	R	E	M	M	R	R	G	G	F	S	A	E	S	T	S
781	GCA	TCT	GAG	CAA	CCA	AAG	CCT	TTC	AAC	CTT	CGG	AAC	CAG	AAG	CCA	GAT	TTC	GAG	AAC	GAC
261▶	A	S	E	Q	P	K	P	F	N	L	R	N	Q	K	P	D	F	E	N	D
841	AAC	GGC	AGG	TTT	ACT	AGA	GCT	GGT	CCC	AAG	GAT	AAT	CCT	TTT	CTA	GAC	TCT	GTC	GAC	GTT
281▶	N	G	R	F	T	R	A	G	P	K	D	N	P	F	L	D	S	V	D	V
901	ACT	GTT	GGG	TTT	GGC	GTT	TTG	AAT	CCT	GGA	ACC	ATG	ACA	GCC	CCA	TCT	CAC	AAC	ACG	AAA
301▶	T	V	G	F	G	V	L	N	P	G	T	M	T	A	P	S	H	N	T	K
961	GCA	ACC	TCA	ATT	GCC	ATT	GTC	ATG	GAG	GGG	GAG	GGA	AGG	ATT	GAG	ATG	GCG	TGC	CCG	CAC
321▶	A	T	S	I	A	I	V	M	E	G	E	G	R	I	E	M	A	C	P	H
1021	CTT	GGT	CAA	GAA	CAT	GGC	TGG	TCT	AGT	CCG	CGC	GAG	AGA	GGC	CAC	CAA	GAT	ATT	AAT	TAT
341▶	L	G	Q	E	H	G	W	S	S	P	R	E	R	G	H	Q	D	I	N	Y
1081	GAG	AGG	GTA	CGG	GCA	AGG	CTG	AGG	ACC	GGC	ACC	GTT	TAC	GTT	GTT	CCT	GCT	GGC	CAT	CCA
361▶	E	R	V	R	A	R	L	R	T	G	T	V	Y	V	V	P	A	G	H	P
1141	ATC	ACC	GAG	ATA	GCT	TCA	ACA	AAC	GGC	CGC	CTG	GAA	ATC	TTG	TGG	TTT	GAT	ATT	AAT	ACC
381▶	I	T	E	I	A	S	T	N	G	R	L	E	I	L	W	F	D	I	N	T
1201	AGC	GGC	AAT	GAG	AGA	GAA	TTC	CTG	GCA	GGA	AAG	AAC	AAT	GTG	CTT	CAA	ACG	CTG	GAG	AAG
401▶	S	G	N	E	R	E	F	L	A	G	K	N	N	V	L	Q	T	L	E	K
1261	GAG	GTC	AGG	CAT	TTA	TCC	TTC	AAC	ATA	CCA	CGT	GGG	GAA	GAG	ATT	GAA	GAA	GTT	CTA	CAG
421▶	E	V	R	H	L	S	F	N	I	P	R	G	E	E	I	E	E	V	L	Q
1321	GCG	CAA	AAG	GAT	CAA	GTC	ATC	CTC	AGA	GGG	CCC	CAA	AGA	CAA	AGG	CGA	GAC	GAG	CCA	AGG
441▶	A	Q	K	D	Q	V	I	L	R	G	P	Q	R	Q	R	R	D	E	P	R
1381	AGC	TCT	TCT	TGA	TCC	ATG	ACA	TTA	TCG	CAG	CTC	GCA	CCA	TGG	ACG	ACA	AAA	CTA	GAG	TTT
461▶	S	S	S																	
1441	CTC	CAC	G																	

Supplemental Figure 1. Coding sequence of Korean pine vicilin and its translated peptide sequence. The signal peptide are shown with an underline with a arrow head at the end.