

```

PiNPP1.1 1 MNIQLQFASAAALTVAHADV--ISHDAVIFPFAOPTTTTTEQKAGIKRKPQIHISNGCH
PsojNIP 1 MNLRPALLATLASFAVVSASV--INHDAQVVPFTOP-TPTTALQQAAVKYKPOLHISNGCH
PiNPP1.2 1 MNLRAFLIAAVASLAVANAKVSRVNHDEVOPFTOP-LPITDSQKSAVKYKPOLHISYGC
PiNPP1.3 1 MNLRAFVIATLAVLVVHADEVYINHHDEVKPPAOP-KPTTDSVAAVKYKPOLVYSYGC
                                                    *

PiNPP1.1 59 PYPAVDADGNTSGGLNPTGSSSAGCKGSGYGSQYGRVATYNGVFAIMYSWYFPKDSPLT
PsojNIP 58 PYPAVDNNNGNTSGGLNPTGSESAAGCKGSGYGTQIYGRAVKYQGVYAFMYSWYMPKDETLT
PiNPP1.2 60 PYPAVEPNGSASGGLEWSGPADGDCTGSPLGSOVYSRSDWYKKNKWAIMYAWYFPKGR-YG
PiNPP1.3 60 PYPAVQADGVSAGLKGGGPMDGECESPLGSOVYSRSTWYEDKWAIMYAWYLPKGR-NT
                                                    *

PiNPP1.1 119 GLGHRHDWEHVVVVDDIKLNSPSVIAVSPSAHSGYNIYHPESNTIDGYS TKVDYSSSW
PsojNIP 118 GLGHRHDWEACVVVDDIAASSPKIVALASAHSGYNYKYPSSSYFSCNSAKLDYSSSY
PiNPP1.2 119 LTGHRHYWEYVVVWADSSSTSTNSSIQGVMSAGVGHAKATPPMLKYIHGSSVKLDSYFSF
PiNPP1.3 119 KYQRHFWEAAVVVIDDPALANSTILGVSLNYGRRHKSKAPLERRYLEGSNVKLESYKGY

PiNPP1.1 179 LVINHALDSTTDAGETQLIMWDQLTDAARTALENTDFG-----DANVPMKDGNF LTK
PsojNIP 178 VVINHALSATSTAGETQPLIMWDQLTDAARRALEDTDFG-----DANVPFKDFANFQTK
PiNPP1.2 179 LGSKAALQLTKRETGETQDLITWDQMTVAARDLNSDALDGNVWLTNKDEVVFFKDTIFLKR
PiNPP1.3 179 GRPRPRLRFQQLKGETQHLITWEQLTKCARDALSNAKFNTGLFKRTKREMP LKDCVFEKR

PiNPP1.1 232 VGNAYYA
PsojNIP 231 LGNAYYA
PiNPP1.2 239 LEDAPFF
PiNPP1.3 239 LKDAYPF

```

Fig. S1. Multiple sequence alignment of *Phytophthora infestans* PiNPP proteins and *Phytophthora sojae* PsojNIP. Identical amino acids are shaded in black and similar amino acids are shaded in gray. Residue numbers are indicated on the left of the sequences. Signal peptides are underlined. Conserved cysteine residues are highlighted with asterisks. The alignment was conducted using the program Clustal-X (Thompson JD, Gibson TJ, Plewniak F, Jeanmougin F, Higgins DG: The CLUSTAL_X windows interface: flexible strategies for multiple sequence alignment aided by quality analysis tools. *Nucleic Acids Res* 1997, 25:4876-4882.) and visualized with BOXSHADE (<http://bioweb.pasteur.fr/seqanal/interfaces/boxshade.html>).