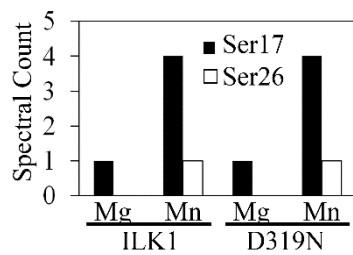
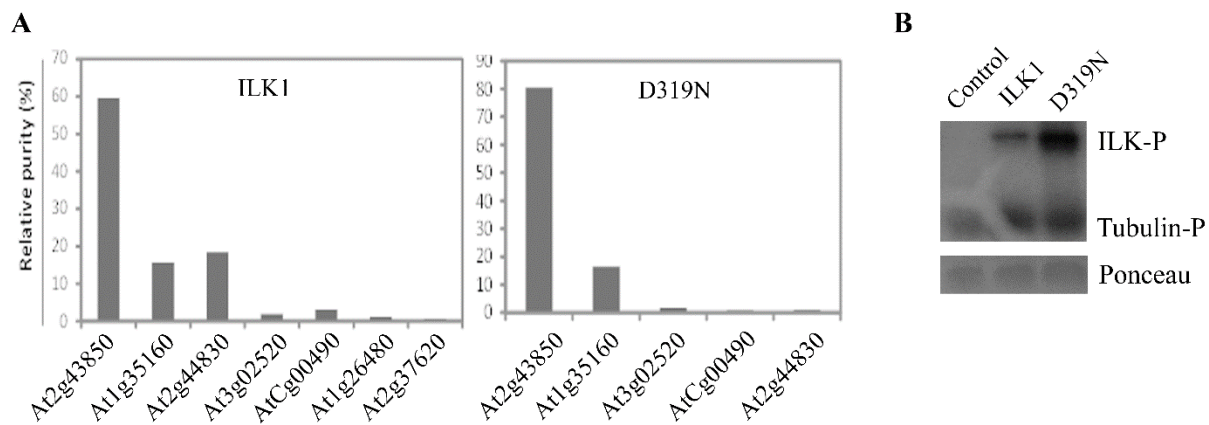


**Running title: Functions of ILK1 in stress signaling**



**Supplemental Figure S1.** Analysis of autophosphorylation sites in ILK1 in the presence of  $Mn^{2+}$  or  $Mg^{2+}$  cofactors. Purified recombinant ILK1 isoforms were exposed to ATP and cofactors and the phosphorylated residues were identified by mass spectrometry.

**Running title: Functions of ILK1 in stress signaling**

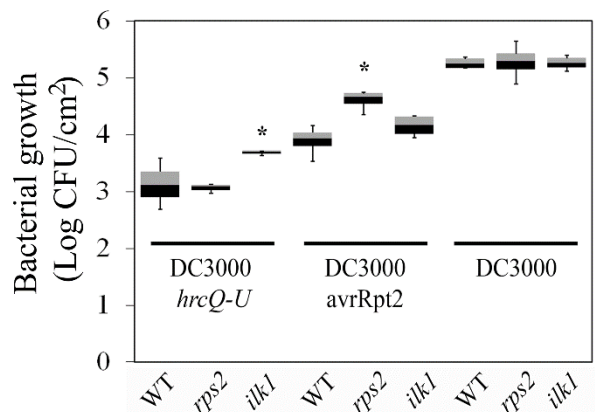


**Supplemental Figure S2.** Relative purity of ILK1 isoforms used to conduct kinase assays.

A, Identity and relative amount of non-ILK1 proteins in purified samples used for kinase assays, as determined by mass spectrometry.

B, Autophosphorylation activity is not present in the empty vector control tissue relative to ILK1, or ILK1<sup>D319N</sup> in the presence of 5 mM Mn. Equal loading is confirmed by Ponceau staining.

**Running title: Functions of ILK1 in stress signaling**



**Supplemental Figure S3.** Bacterial growth is unaltered in *ilk1-1* knockdown line infected with *P. syringae* pv. *tomato* DC3000 or DC3000 AvrRpt2 strains. Rosette leaves were flood-inoculated and bacteria were counted 2 days after inoculation (n=25-36 plants). The *rps2* line is unable to induce *avrRpt2*-induced immunity.

**Running title: Functions of ILK1 in stress signaling**

**Supplemental Table S1.** Identification of phosphorylated serines in purified ILK1 and ILK1<sup>D319N</sup> protein using mass spectrometry.

Phospho site	Peptide	$\Delta M$ [ppm]	pRS Score <sup>a)</sup>	pRS site probability <sup>b)</sup>	$\Delta Cn$	Xcorr	m/z [Da]	RT [min]	Ion matched
Ser <sup>17</sup>	GISRQFs	1.34	200	S(7): 99.6;	0	3.35	516	20	21/48
	TGSIRR			T(8): 0.4					
Ser <sup>26</sup>	RTLsRQ	2.20	218	T(2): 0.0; S(4):	0	3.00	416	13	17/32
	FTR			100.0					

<sup>a)</sup> pRS score: This peptide score is based on the cumulative binomial probability that the observed match is a random event. The value of the pRS score strongly depends on the data scored, but usually scores above 50 give good evidence for a good PSM.

<sup>b)</sup> pRS site probabilities: For each phosphorylation site this is an estimation of the probability (0-100%) for the respective site being truly phosphorylated. pRS site probabilities above 50% are good evidence that the respective site is truly phosphorylated.

**Supplemental Table S2.** The primer pairs used in this study.

**Running title: Functions of ILK1 in stress signaling**

<b>Gene</b>	<b>Use</b>	<b>Forward Primer</b>	<b>Reverse Primer</b>
<i>ILK1</i> <i>T-DNA</i> <i>insert</i>	Mutant selection	CCAGAAAGACAAAGCAGAATC	GCCTTTCAGAAATGGATAAATA GCCTTG
<i>ILK1</i>	Cloning	ATGGAGAACATAACCGCGCA	CCAGAAAGACAAAGCAGAATC
<i>K222A</i> mutation	Cloning	TTCAGTCGCAATACTTGATAA AGA	ATCAAGTATTGCGACTGAAA CCCG
<i>D319N</i> mutation	Cloning	CAATCATTCACTGTAACCTAA AGCCAAAAAATATTTTG	ATTTTTTGGCTTTAGFTGACAGT GAATGATTGG
<i>FRK1</i>	qRTPCR	TGCAGCTCAGTTTCAATCAAGT GG	CCTTTGCCTCTCGGCGTCGG
<i>CFP</i>	Mutant selection	GAGCAAAGACCCCAACGAGA	GGTACCGTCGACTGCAGAAT
<i>PP2A</i>	qRTPCR	TAACGTGGCCAAAATGATGC	GTTCTCCACAACCGCTTGGT
<i>WRKY29</i>	qRTPCR	ACGAGTACGCACCAAGCGGC	GGAAAAGTCCGCTCCCGGACA
<i>CYP81F2</i>	qRTPCR	CTATCGTCGGCCATCTCCAC	TATTTTTTCAGCGAAGCGGCG
<i>NHL10</i>	qRTPCR	GCCTACTACGAGGGAAAGCG	AACGTTGGTGTGAGAACGGT
<i>PHI-1</i>	qRTPCR	GGTGGCCAAAAGCTACGCGGT	CAGTCCCGTGTGACCCGCAT
<i>RD29A</i>	qRTPCR	AGTGATCGATGCAACGAGCGT	CGGAAGACACGACAGGAAACAC
<i>RD29B</i>	qRTPCR	GGGGAAAGGACATGGTGAGG	GGTTTACCACCGAGCCAAGA
<i>HAK5</i>	qRTPCR	CCGTCCACTCGGTGTTTGTA	GAATCCTTTGGCCCCACGTA
<i>ILK1</i>	qRTPCR	CATCATCTTGATGGCCGGA	GFACTTTGCATCAGCAGCCG

**Running title: Functions of ILK1 in stress signaling**

**Supplemental Table S3.** Analysis of transporters identified as putative ILK1 phosphorylation targets and protein interaction targets using the kinase client assay (KiC) and functional protein microarrays (FPM). The average signal with ILK1 represents the fluorescence signal in relative light units across three independent arrays for the FPM and the number of phosphopeptides observed and number of peptides detected overall in parentheses for the KiC.

<b>ID</b>	<b>Assay</b>	<b>Phospho -peptide</b>	<b>pRS Score<sup>a)</sup></b>	<b>pRS site probability<sup>b)</sup></b>	<b>p-value</b>	<b>Average signal with ILK1</b>	<b>Average signal in control</b>
At4g33530	FPM	-	-	-	0.0002	45051	1590
At1g06470	FPM	-	-	-	0.0001	39483	1469
At3g03090	FPM	-	-	-	0.0044	17531	1566
At4g13420	KiC	YRPDS FIIEAGQ T	46	Y(1): 98.8; T(13): 100.0		1 (7)	0 (10)
At1g14850	KiC	NLFG AYSNGG ESANKR Q	44	Y(6): 50.0; S(7): 50.0		1 (10)	0 (24)
At5g41800	KiC	PPFVT RLSDA GALFVL Q	101	S(9): 98.8		2 (28)	0 (26)
At1g11260	KiC	IRGVD DVSQEF DDLVA SKE	39	S(18): 98.6		1 (28)	0 (23)

<sup>a)</sup> pRS score: This peptide score is based on the cumulative binomial probability that the observed match is a random event where scores above 50 give good evidence for a match.

<sup>b)</sup> pRS site probabilities: Estimate of probability (0-100%) that the phosphorylation site is phosphorylated where a score of 50% or above is considered evidence of phosphorylation.

***Running title: Functions of ILK1 in stress signaling***

**Supplemental Data S1.** Ionic profile for flg22-treated seedlings.