Supplemental Table 1 Location of transposon insertions in the circular chromosome of *Agrobacterium tumefaciens* strain A348

Isolate	Insertion site (sequence number)	Annotation
Mutant 3	2449980	*mexF*
Mutant 4	2449930	*mexF*
Mutant 5	2526870	*ameC* (also *nodT)*
Mutant 6	2448850	*mexE*
Mutant 7	2449009	*mexE*
Mutant 8	2449607	*mexE*
Mutant 9	2449052	*mexE*
Mutant 10	2447826	*Atu 2481*
Mutant 11	2449494	*mexE*

Supplemental Table 2

Competition between A348 and AB3018 at tobacco stem segment wound site

		A348 vs AB3018/pMP7604		A348/pMP7604 vs AB3018
	Replicate #	% AB3018/pMP7604[a](n[b])		%AB3018[c] (n)
Day 0[d]		40 (125)		46 (146)
Day 5[e]	#1	41 (117)	#1	37 (116)
	#2	47 (162)	#2	43 (98)
	#3	49 (51)	#3	45 (76)

a % of red fluorescent colonies
b Total # of colonies counted
c % of non-fluorescent colonies
d counts of colonies of cells from starting mix
e counts of colonies of cells recovered from three different stem segments after 5 days

Supplemental Table 3 Primers used in this study

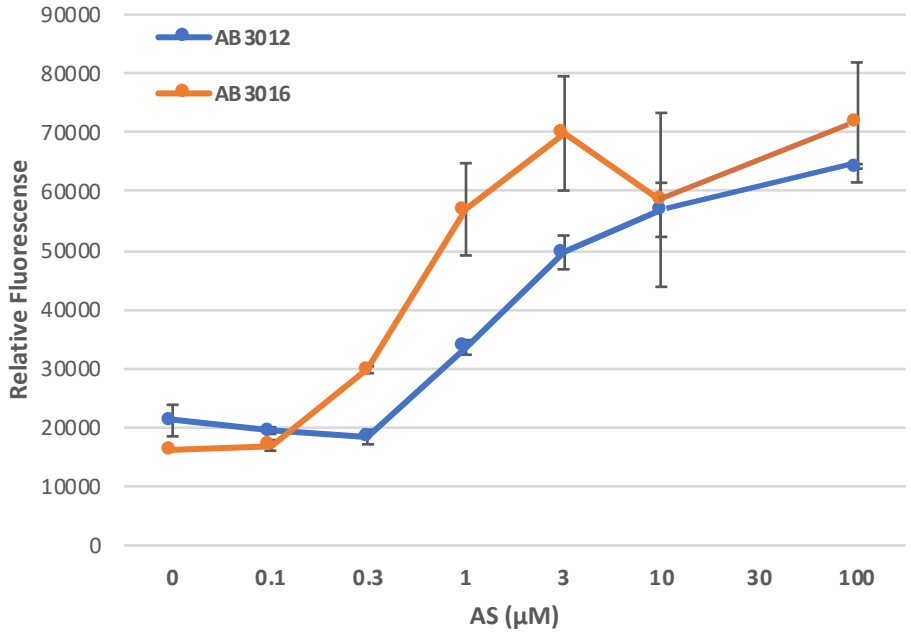
4carb.P1:	GATCTCTTAAATTACCAATGCTTAATCAGTGAG
4carb.P2:	GATAAGGTATGAGTATTCAACATTTCCGTGTC
4pvirB.P1:	ATGTTGAATACTCATACCTTATCTCCTTAGCTC
4virB1.P2:	AAGCATTGGTAATTTAAGAGATCGGGGTCGCT
5sacB.P1:	TCCGCATTGATGAACATCAAAAAGTTTGCAA
5sacB.P2:	CAAAGCATCGTTATTTGTTAACTGTTAATTGTCC
5DownvirB2	AAACTGCACTATCAATGCTTC
5UpvirB1	GCCACTCTCATCTGCTGAG
5virB1.P11:	TTTTGATGTTCATCAATGCGGACCTCCTTA
5virB2.P2 (SalI):	CAGACTGTCGACAAAATAGCAGGACGACGCTC
5virB2.p22:	AGTTAACAAATAACGATGCTTTGAGAGATATCGT
6virB1.P1 (EcoRI):	TCAGTCGAATTCCATCAGTTGCGACATCTAC
chvE.PI (XmaI)	AATGCGGCCGATGATGAAA
chvE.PIV (EagI)	AGCGTCCCGGGCGATTCCTT
CondMexE-F:	TTAAAGCCCGTGACCGCAT
CondMexE-R	TGCCAAGCTGAAGGTGAC
conE2GFPE3.P1	TTTGCCGGCGACAATTACG
conE2GFPE3.P2	AATATCGCGGCCGAGTTCG
dMexEP1: (EcoRI)	CAGAATTCGATGATGACGACGGAATCCTTCCG
dMexEP2:	TTACTGATCAAAGAGGTGGGTATCTCCTTGGCCCCAGATCA
dMexEP3	TGATCTGGGGCCAAGGAGATACCCACCTCTTTGATCAGTAA
dMexEP4: (XbaI)	CAGTCGACTCTGTTCTTCCAGCGGCGTT
DOWNDC3:	CGATTTCGTGGATGGAGAAG
DownvirB1	GCGAGCGGCGCTGATAAG
E2GFPE3.P1: (BamHI)	ACGCGGATCCAGTTTGAACACACCGTCAAG
E2GFPE3.P2	ATTCTAGGTACGCGGCAGAAGGAACGTCAA
E2GFPE3.P3	TTCTGCCGCGTACCTAGAATTAAAGAGGAG
E2GFPE3.P4	TCCTCATTGACTAGTAGGTCAGCTAATTAAGC
E2GFPE3.P5	TGACCTACTAGTCAATGAGGAAGCTCGTTG
E2GFPE3.P6 (PstI)	AAAACTGCAGGACCTAAAAGATTTGTTGAAAG
K262Scon.P1:	TTGCGGAATTCCATCAGGAG

MexEP10:GGTCAGCTAATTAAGCTTGGCTGCAGGTCGATTACTGCGAAGCAGCAACCTTGTCTTCCGCC
(*mexE* sequence underlined, remaining is pYW15C)

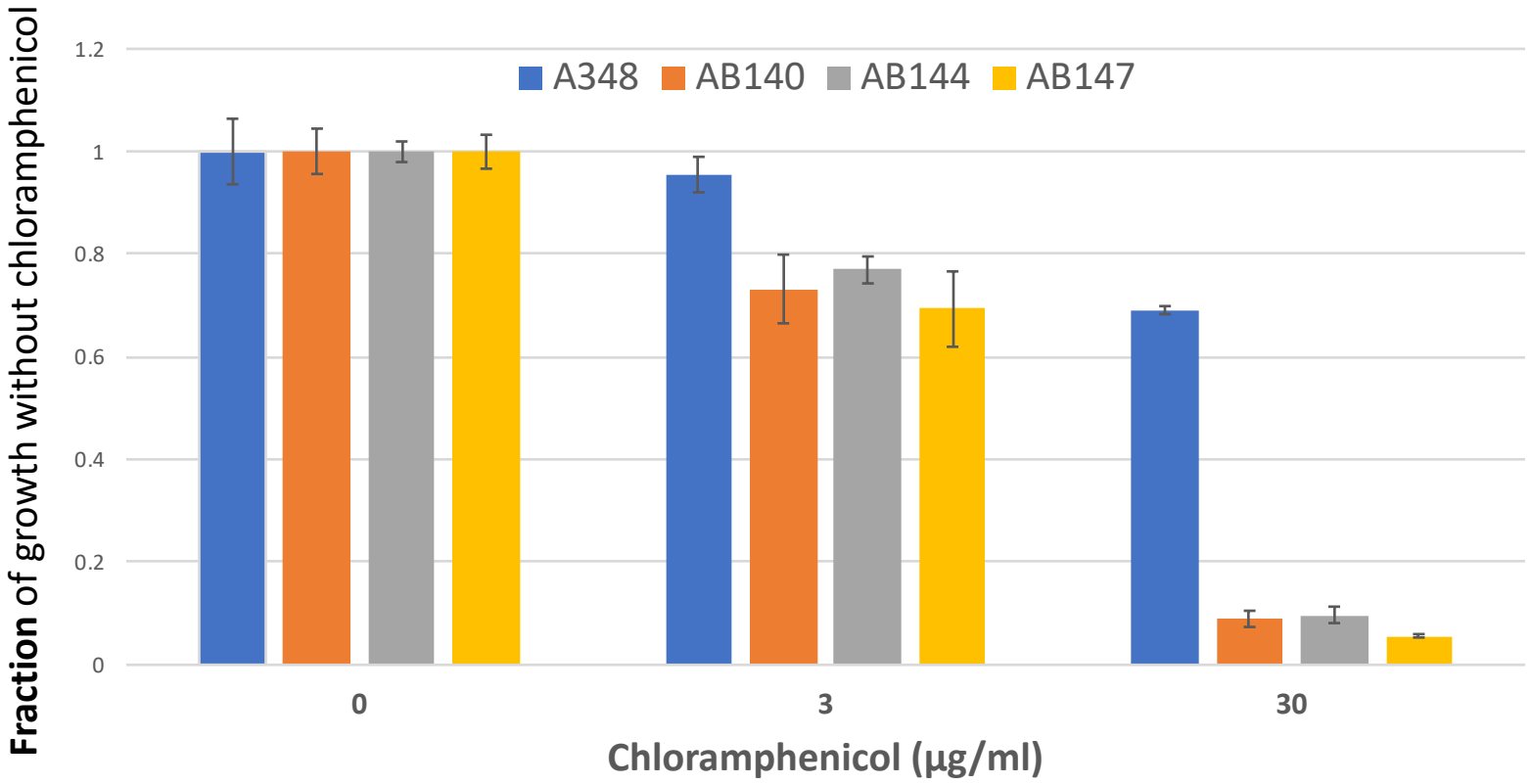
MexEP9: AATTAACTATGAGAGGATCCGCATGCGAGCTATGACGCTGAACACAAAGCGCCGGGCCCTG
(*mexE* sequence underlined, remaining is pYW15C)

PvirB.P2(SalI):	AGACTGTCGACAATATTCCTGCCAAGAGTAATC
pYW15cseqF:	CAATTTCACACAGAATTCAT
pYW15cseqR:	GGCCCTTTCGTCTTCAAG
upvirB.P2	AGCGTTTGCAAAGCGCAAG
virB1.P1(EcoRI):	GACTACGAATTCAAACGTCCCACGTATCTTCC
oriR6Kseq:	GACACAGGACACTTACGGC
TnmodRKan2:	ACCTTCTTCACGAGGCAGACC

Supplemental Figure 1: Comparison of AS sensitivity of wild type (AB3012) or Δ*mexE* (AB3016) strains on ABI inducing medium containing various AS doses: GFP expression (n=3 ± SD)

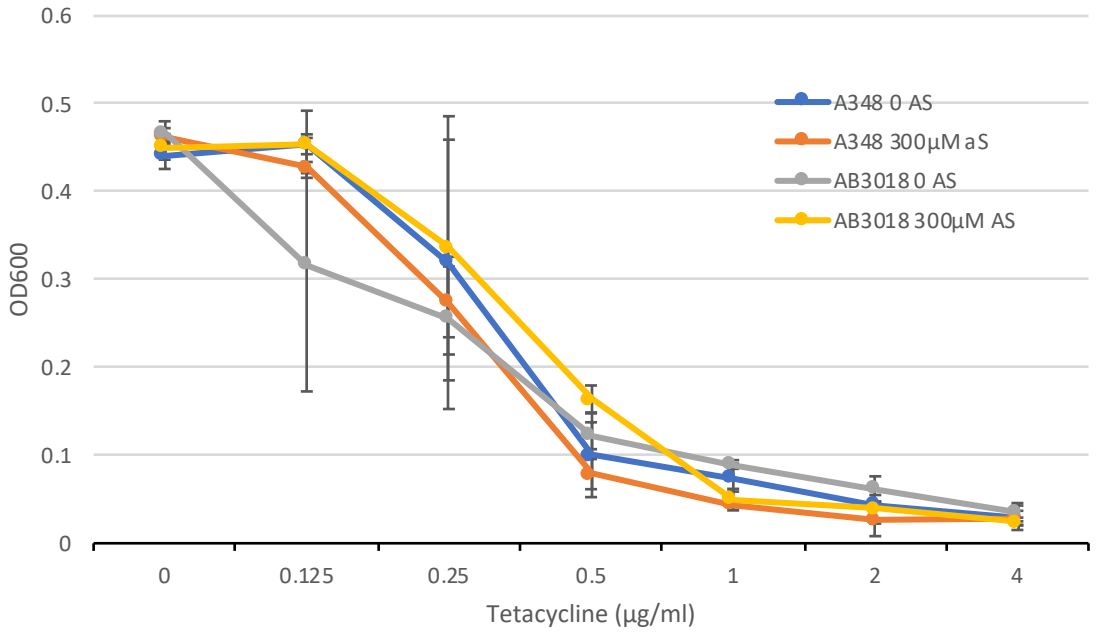


Supplemental Figure 2 Chloramphenicol sensitive of AS hypersensitive mutants isolated by Campbell et al.* (n=3 ± SD)

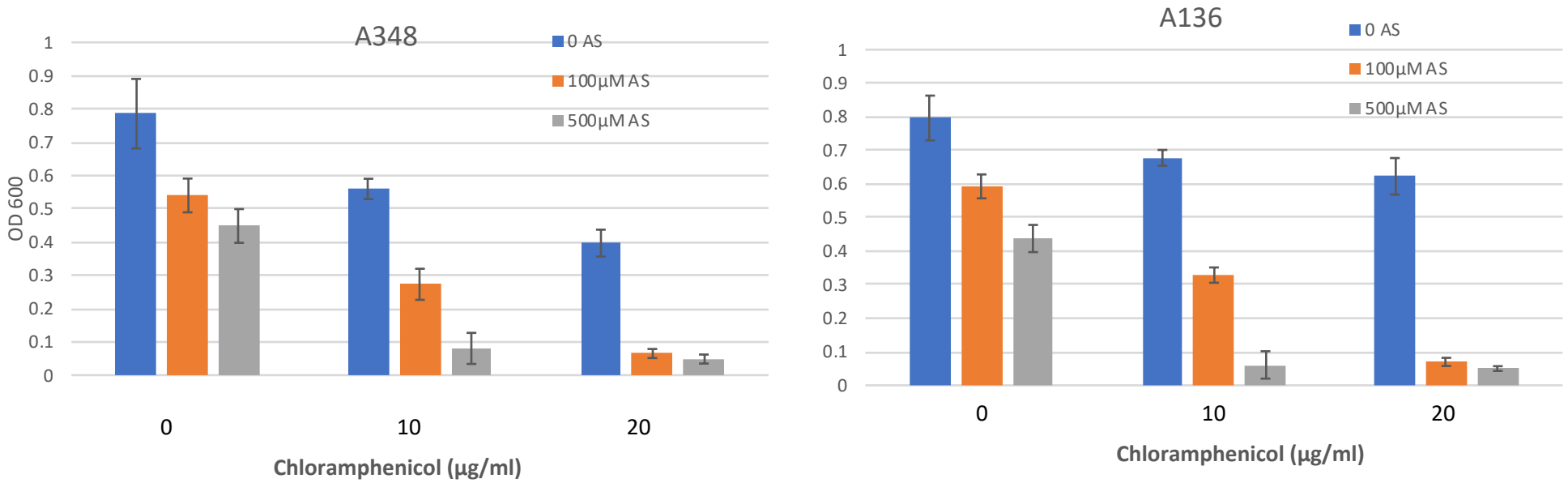


* Campbell AM, Tok JB, Zhang J, Wang Y, Stein M, Lynn DG, Binns AN. 2000. Xenognosin sensing in virulence: is there a phenol receptor in *Agrobacterium tumefaciens*. Chem Biol 7:65-76

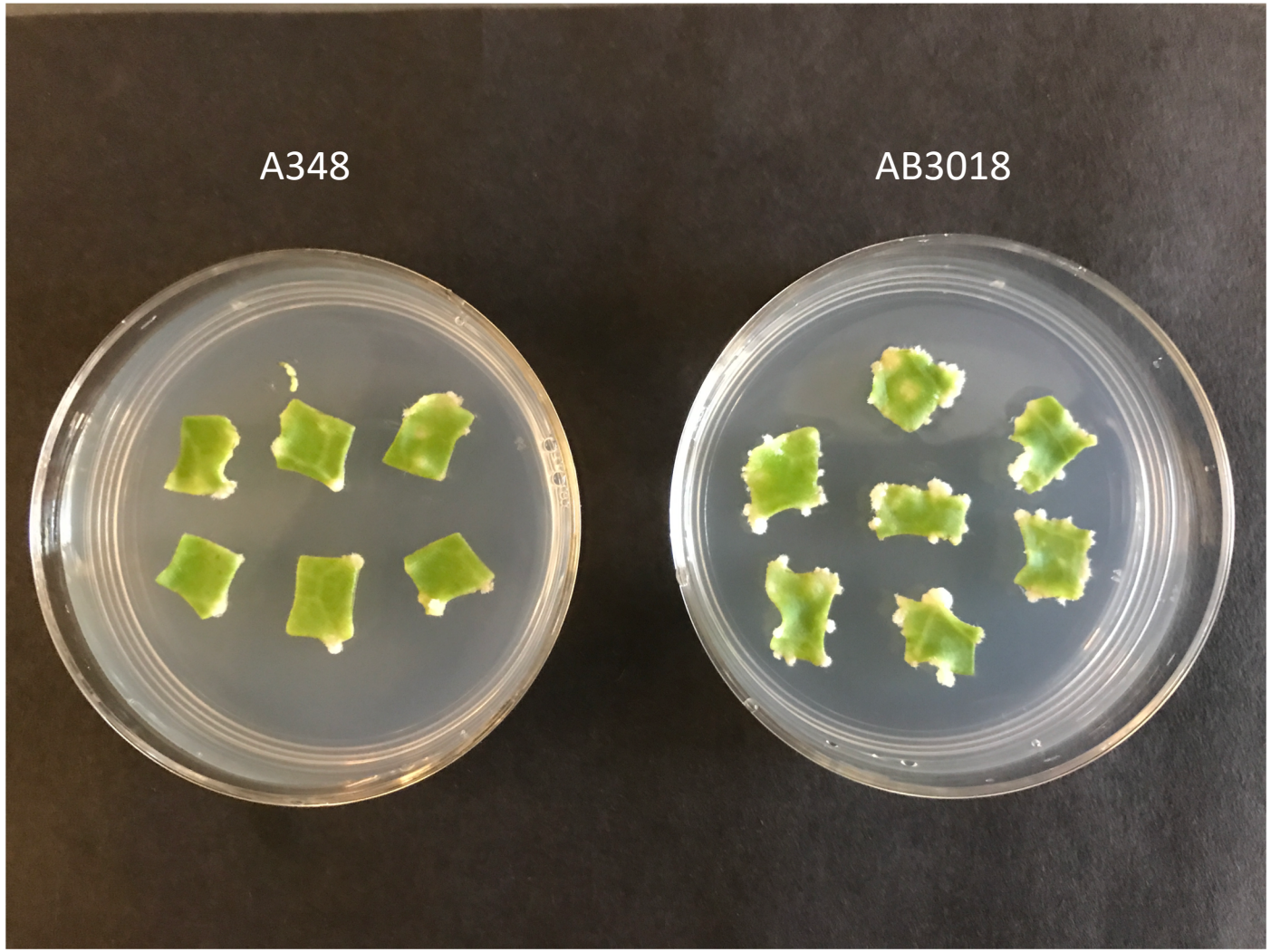
Supplemental Figure 3. Growth of A348 (wt) and AB3018 (Δ*mexE*) in the presence of various tetracycline concentrations plus or minus 300 µM AS (n=3 ± SD)



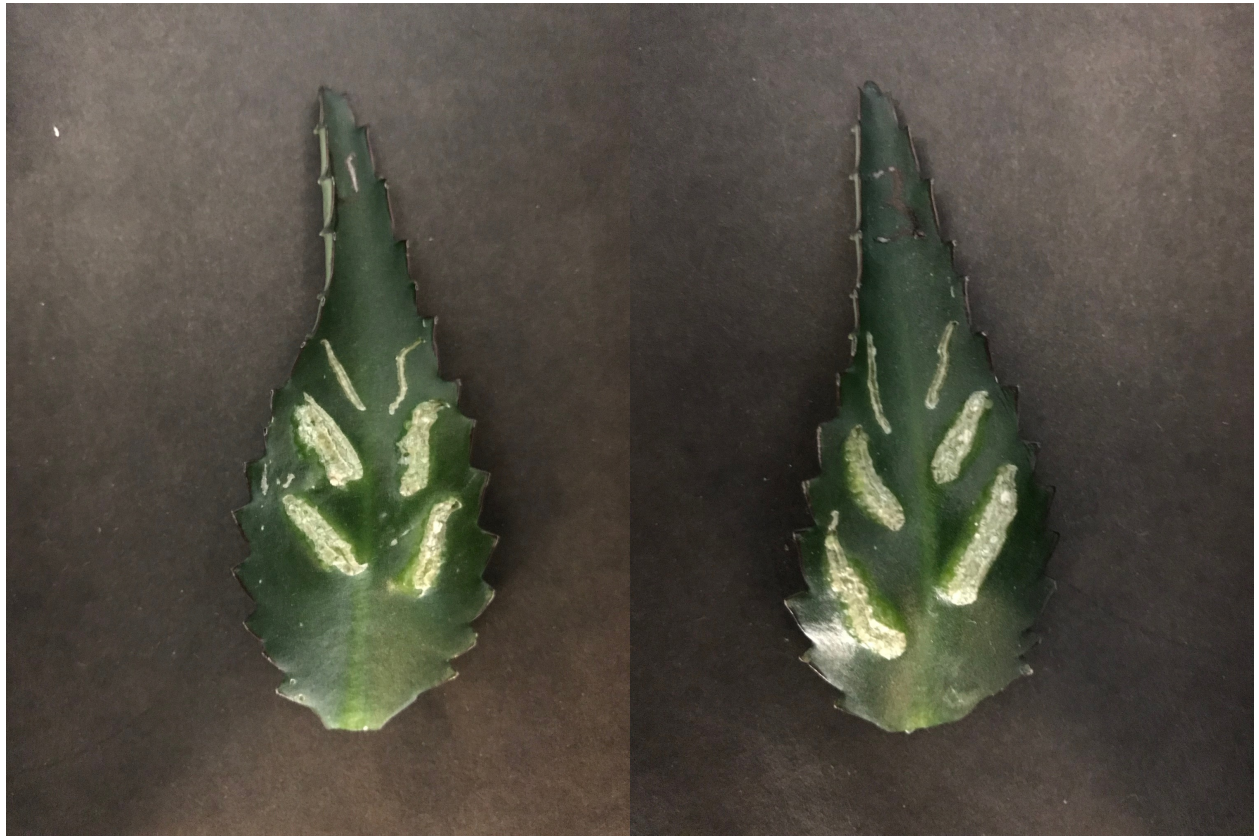
Supplemental Figure 4. Comparison of strains A348 (carries pTiA6) and A136 (no Ti plasmid) in the AS/chloramphenicol competition assay (n=3 ± SD)



Supplemental Figure 5. Tumor initiation on tobacco leaf explants co-cultivated in the absence of exogenous AS with either A348 (WT) or AB3018 (Δ*mexE*)



Supplemental Figure 6. Comparison of A348 and AB3018 virulence on *Kalenchoe degromentia* leaves. Leaves scratched with 20 gauge needle and infected with bacteria diluted in H_2O as shown



A348 AB3018 A348 AB3018

No bacteria

5 µl 0.025 OD_{600}

5 µl 0.25 OD_{600}