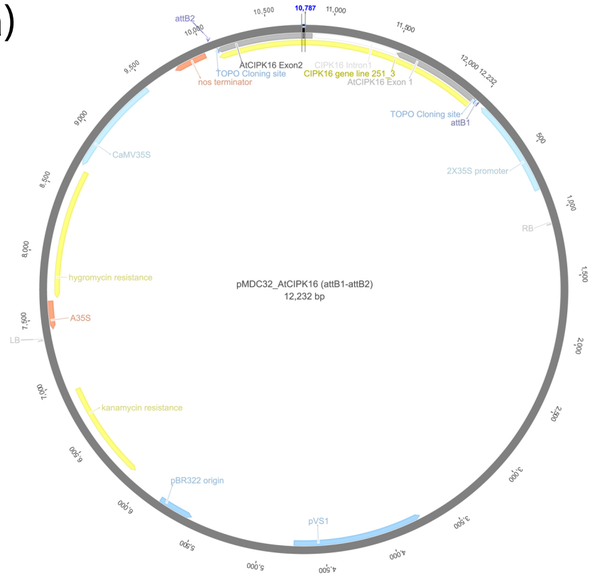
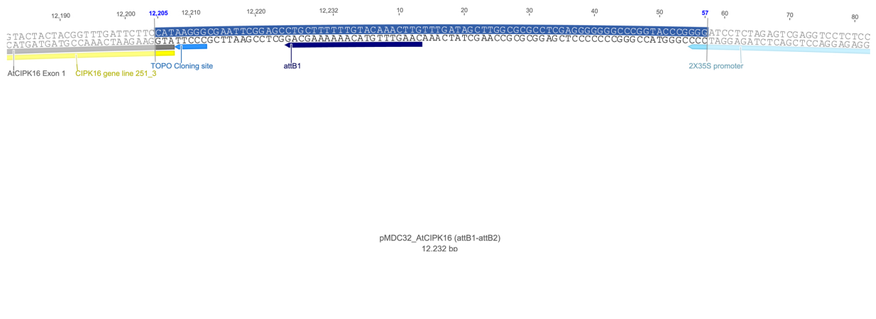
a)



b)

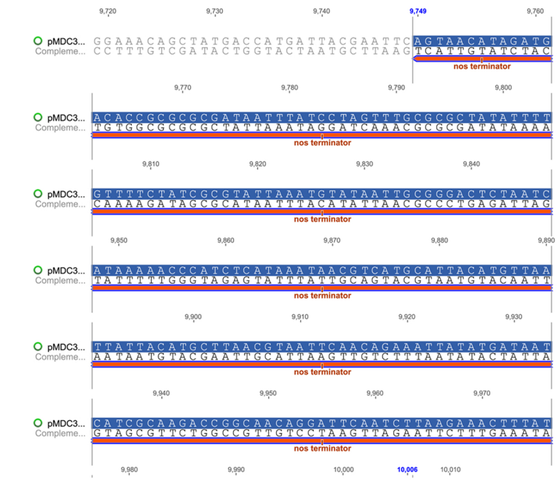


g)

	5`			CDS		3`		Factors		
	transgene_35Spromoter	transgene_5p	wildtype_5p	5`UTR-exon1 boundary	Exon1	Exon2	transgene_3p	wildtype_3p	Tissue	Genotype	Treatment
A17_CGATGT_L001_001.fastq.gz	0	0	0	0	18	21	1	4	Root	Null	Control
A17_CGATGT_L002_001.fastq.gz	0	0	1	1	22	21	0	4	Root	Null	Control
A18_TGACCA_L001_001.fastq.gz	0	0	1	0	10	10	1	3	Root	Null	Control
A18_TGACCA_L002_001.fastq.gz	0	0	1	0	11	8	0	1	Root	Null	Control
B19_ACAGTG_L001_001.fastq.gz	0	0	1	0	31	37	1	11	Root	Null	Control
B19_ACAGTG_L002_001.fastq.gz	0	0	2	0	45	34	1	8	Root	Null	Control
B20_GCCAAT_L001_001.fastq.gz	0	0	1	0	23	9	0	3	Root	Null	Control
B20_GCCAAT_L002_001.fastq.gz	0	0	1	1	16	8	1	1	Root	Null	Control
A25_ATCACG_L001_001.fastq.gz	0	0	0	0	4	3	0	1	Root	Null	Salt
A25_ATCACG_L002_001.fastq.gz	0	0	1	0	6	6	0	2	Root	Null	Salt
A26_TTAGGC_L001_001.fastq.gz	0	0	1	0	17	3	2	0	Root	Null	Salt
A26_TTAGGC_L002_001.fastq.gz	0	0	0	0	14	13	1	1	Root	Null	Salt
B27_ACTTGA_L001_001.fastq.gz	0	0	2	0	8	4	0	0	Root	Null	Salt
B27_ACTTGA_L002_001.fastq.gz	0	0	0	0	4	2	0	1	Root	Null	Salt
B28_GATCAG_L001_001.fastq.gz	0	0	0	0	12	9	1	3	Root	Null	Salt
B28_GATCAG_L002_001.fastq.gz	0	0	0	0	18	6	1	0	Root	Null	Salt
A21_CAGATC_L001_001.fastq.gz	4	35	0	41	162	126	287	7	Root	Transgenic	Control
A21_CAGATC_L002_001.fastq.gz	2	18	0	28	184	153	222	8	Root	Transgenic	Control
A22_CTTGTA_L001_001.fastq.gz	2	45	0	58	200	159	93	13	Root	Transgenic	Control
A22_CTTGTA_L002_001.fastq.gz	0	36	0	57	205	132	79	14	Root	Transgenic	Control
B23_AGTCAA_L001_001.fastq.gz	3	33	0	47	153	124	284	17	Root	Transgenic	Control
B23_AGTCAA_L002_001.fastq.gz	6	23	0	33	122	119	301	17	Root	Transgenic	Control
B24_AGTTCC_L001_001.fastq.gz	3	22	0	31	130	103	262	14	Root	Transgenic	Control
B24_AGTTCC_L002_001.fastq.gz	1	16	0	24	112	93	254	12	Root	Transgenic	Control
A29_TAGCTT_L001_001.fastq.gz	2	8	0	13	64	45	165	2	Root	Transgenic	Salt
A29_TAGCTT_L002_001.fastq.gz	2	12	0	16	71	55	161	6	Root	Transgenic	Salt
A30_GTGGCC_L001_001.fastq.gz	3	290	0	376	1620	1500	1424	192	Root	Transgenic	Salt
A30_GTGGCC_L002_001.fastq.gz	4	263	0	390	1577	1506	1435	215	Root	Transgenic	Salt
B31_GGCTAC_L001_001.fastq.gz	3	47	0	68	296	211	1057	20	Root	Transgenic	Salt
B31_GGCTAC_L002_001.fastq.gz	3	53	1	68	266	229	1023	24	Root	Transgenic	Salt
B32_GTTTCG_L001_001.fastq.gz	2	119	0	144	724	627	865	75	Root	Transgenic	Salt
B32_GTTTCG_L002_001.fastq.gz	5	107	0	140	695	602	917	69	Root	Transgenic	Salt
A1_CGATGT_L001_001.fastq.gz	0	0	0	0	1	0	0	0	Shoot	Null	Control
A1_CGATGT_L002_001.fastq.gz	0	0	0	0	0	0	0	0	Shoot	Null	Control
A2_TGACCA_L001_001.fastq.gz	0	0	0	0	0	1	0	0	Shoot	Null	Control
A2_TGACCA_L002_001.fastq.gz	0	0	0	0	1	0	0	0	Shoot	Null	Control
B3_ACAGTG_L001_001.fastq.gz	0	0	0	0	0	1	0	1	Shoot	Null	Control
B3_ACAGTG_L002_001.fastq.gz	0	0	0	0	0	1	0	1	Shoot	Null	Control
B4_GCCAAT_L001_001.fastq.gz	0	0	0	0	0	1	0	0	Shoot	Null	Control
B4_GCCAAT_L002_001.fastq.gz	0	0	0	0	0	0	0	0	Shoot	Null	Control
A10_TTAGGC_L001_001.fastq.gz	0	0	0	0	0	0	0	0	Shoot	Null	Salt
A10_TTAGGC_L002_001.fastq.gz	0	0	0	0	0	0	0	0	Shoot	Null	Salt
A9_ATCACG_L001_001.fastq.gz	0	0	0	0	2	0	0	0	Shoot	Null	Salt
A9_ATCACG_L002_001.fastq.gz	0	0	0	0	0	0	0	0	Shoot	Null	Salt
B11_ACTTGA_L001_001.fastq.gz	0	0	0	0	0	0	0	0	Shoot	Null	Salt
B11_ACTTGA_L002_001.fastq.gz	0	0	0	0	0	0	0	0	Shoot	Null	Salt
B12_GATCAG_L001_001.fastq.gz	0	0	0	0	1	1	0	1	Shoot	Null	Salt
B12_GATCAG_L002_001.fastq.gz	0	0	0	0	2	3	0	0	Shoot	Null	Salt
A5_CAGATC_L001_001.fastq.gz	4	17	0	24	75	56	118	3	Shoot	Transgenic	Control
A5_CAGATC_L002_001.fastq.gz	0	15	0	19	69	72	112	5	Shoot	Transgenic	Control
A6_CTTGTA_L001_001.fastq.gz	2	8	0	11	60	54	110	7	Shoot	Transgenic	Control
A6_CTTGTA_L002_001.fastq.gz	2	15	0	19	61	42	102	7	Shoot	Transgenic	Control
B7_AGTCAA_L001_001.fastq.gz	4	28	0	38	153	100	436	9	Shoot	Transgenic	Control
B7_AGTCAA_L002_001.fastq.gz	6	26	0	40	177	135	406	12	Shoot	Transgenic	Control
B8_AGTTCC_L001_001.fastq.gz	0	28	0	34	107	85	152	17	Shoot	Transgenic	Control
B8_AGTTCC_L002_001.fastq.gz	1	22	0	27	122	84	167	11	Shoot	Transgenic	Control
A13_TAGCTT_L001_001.fastq.gz	1	10	0	13	46	36	14	1	Shoot	Transgenic	Salt
A13_TAGCTT_L002_001.fastq.gz	0	13	0	17	45	24	19	2	Shoot	Transgenic	Salt
A14_GGCTAC_L001_001.fastq.gz	1	20	0	24	85	64	59	6	Shoot	Transgenic	Salt
A14_GGCTAC_L002_001.fastq.gz	1	26	0	30	90	59	85	4	Shoot	Transgenic	Salt
B15_GTGGCC_L001_001.fastq.gz	1	12	0	16	59	56	86	7	Shoot	Transgenic	Salt
B15_GTGGCC_L002_001.fastq.gz	1	12	0	15	43	39	97	4	Shoot	Transgenic	Salt
B16_GTTTCG_L001_001.fastq.gz	1	20	0	25	117	114	251	13	Shoot	Transgenic	Salt
B16_GTTTCG_L002_001.fastq.gz	1	31	0	36	129	100	274	10	Shoot	Transgenic	Salt

d)

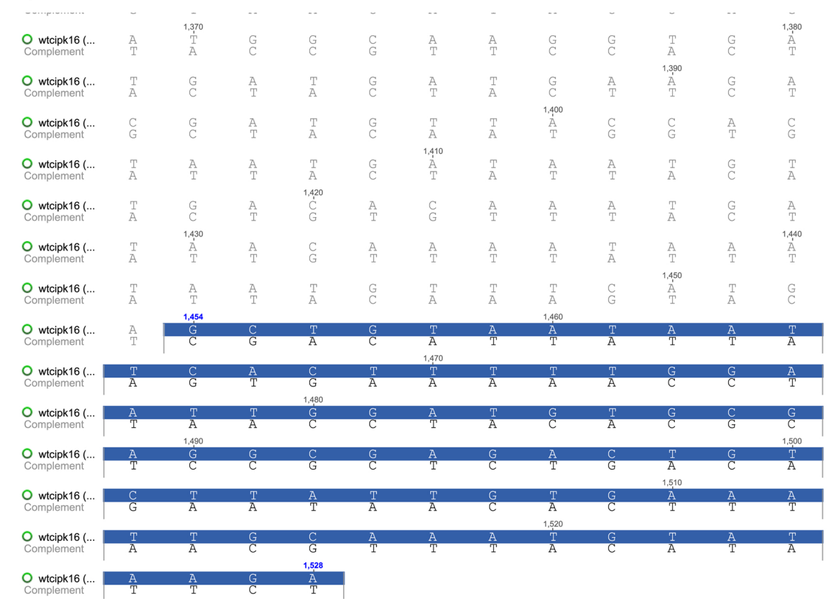
e)



h)

	5`			CDS		3`		Factors		
	transgene_35Spromoter	transgene_5p	wildtype_5p	5`UTR-exon1 boundary	Exon1	Exon2	transgene_3p	wildtype_3p	Tissue	Genotype	Treatment
C8H26ANXX_cipk1-R0_S33_L007	0	0	0	0	13	26	0	2	Root	Null	Control
C8H26ANXX_cipk2-R0_S34_L007	0	0	0	0	13	21	2	3	Root	Null	Control
C8H26ANXX_cipk3-R0_S35_L007	0	0	0	0	13	16	0	8	Root	Null	Control
C8H26ANXX_cipk4-R0_S36_L007	0	0	0	0	6	13	1	4	Root	Null	Control
C8H26ANXX_cipk5-R75_S37_L007	0	0	1	0	25	30	0	6	Root	Null	Salt
C8H26ANXX_cipk6-R75_S38_L007	0	0	0	0	38	68	2	13	Root	Null	Salt
C8H26ANXX_cipk7-R75_S39_L007	0	0	1	0	42	39	0	7	Root	Null	Salt
C8H26ANXX_cipk8-R75_S40_L007	0	0	1	0	10	9	2	1	Root	Null	Salt
C8H26ANXX_cipk10-R0_S42_L007	2	4	0	5	26	44	102	6	Root	Transgenic	Control
C8H26ANXX_cipk11-R0_S43_L007	0	8	0	8	52	65	153	3	Root	Transgenic	Control
C8H26ANXX_cipk12-R0_S44_L007	0	1	0	2	22	30	55	1	Root	Transgenic	Control
C8H26ANXX_cipk9-R0_S41_L007	0	17	0	19	142	165	176	15	Root	Transgenic	Control
C8H26ANXX_cipk13-R75_S45_L007	1	11	0	12	130	123	304	5	Root	Transgenic	Salt
C8H26ANXX_cipk14-R75_S46_L007	0	10	0	11	56	64	52	7	Root	Transgenic	Salt
C8H26ANXX_cipk15-R75_S47_L007	2	4	0	6	32	41	93	7	Root	Transgenic	Salt
C8H26ANXX_cipk16-R75_S48_L007	0	4	0	6	45	49	135	3	Root	Transgenic	Salt
C8H26ANXX_cipk21-S0_S53_L008	4	9	0	9	85	94	142	7	Shoot	Transgenic	Control
C8H26ANXX_cipk22-S0_S54_L008	1	10	0	11	65	46	81	6	Shoot	Transgenic	Control
C8H26ANXX_cipk23-S0_S55_L008	3	10	0	12	81	65	114	5	Shoot	Transgenic	Control
C8H26ANXX_cipk24-S0_S56_L008	0	14	0	17	75	102	138	6	Shoot	Transgenic	Control
C8H26ANXX_cipk17-S75_S49_L008	5	50	0	55	187	143	509	20	Shoot	Transgenic	Salt
C8H26ANXX_cipk18-S75_S50_L008	1	6	0	7	66	58	102	9	Shoot	Transgenic	Salt
C8H26ANXX_cipk19-S75_S51_L008	0	11	0	11	67	48	66	5	Shoot	Transgenic	Salt
C8H26ANXX_cipk20-S75_S52_L008	2	18	0	19	170	186	209	11	Shoot	Transgenic	Salt
C8H26ANXX_cipk29-S0_S61_L008	0	0	0	0	0	1	0	0	Shoot	Null	Control
C8H26ANXX_cipk30-S0_S62_L008	0	0	0	0	0	1	0	2	Shoot	Null	Control
C8H26ANXX_cipk31-S0_S63_L008	0	0	0	0	0	0	0	0	Shoot	Null	Control
C8H26ANXX_cipk32-S0_S64_L008	0	0	0	0	1	0	0	0	Shoot	Null	Control
C8H26ANXX_cipk25-S75_S57_L008	0	0	0	0	0	3	0	1	Shoot	Null	Salt
C8H26ANXX_cipk26-S75_S58_L008	0	0	0	0	3	1	0	0	Shoot	Null	Salt
C8H26ANXX_cipk27-S75_S59_L008	0	0	0	0	0	0	0	0	Shoot	Null	Salt
C8H26ANXX_cipk28-S75_S60_L008	0	0	0	0	0	1	0	0	Shoot	Null	Salt

f)



S1: Summary of *k-mer* baiting step to confirm the presence of the transgene in samples

a) Construct architecture of the *AtCIPK16* transgene; b) the sequence in between the 35S promoter and the AtCIPK16 exon 1; c) 35S promoter sequence that was used to bait the 5` UTR region of the transgene; d) NOS terminator sequence that was used to bait the 3` UTR region of the transgene; e) wild type *AtCIPK16* 5` UTR region; f) wild type AtCIPK16 3` UTR region; g) baiting results from the 3 hour time point; h) baiting results from the 51 hour time point; for g and h the columns from left to right represent the following: column1: name of the fastq file, column2: number of baits for the transgene 3` UTR region, column3: number of baits for the transgene 5` UTR region, column4: number of baits for the transgene 5` UTR region between exon1 and the 35S promoter, column5: number of baits for the wild type 3` UTR region, column6: number of baits for the transgene 5` UTR region, column7-9: experimental conditions of each sample. Rows of g and h are coloured for green shades to represent the shoot samples and brown shades to represent root samples.