Appendix

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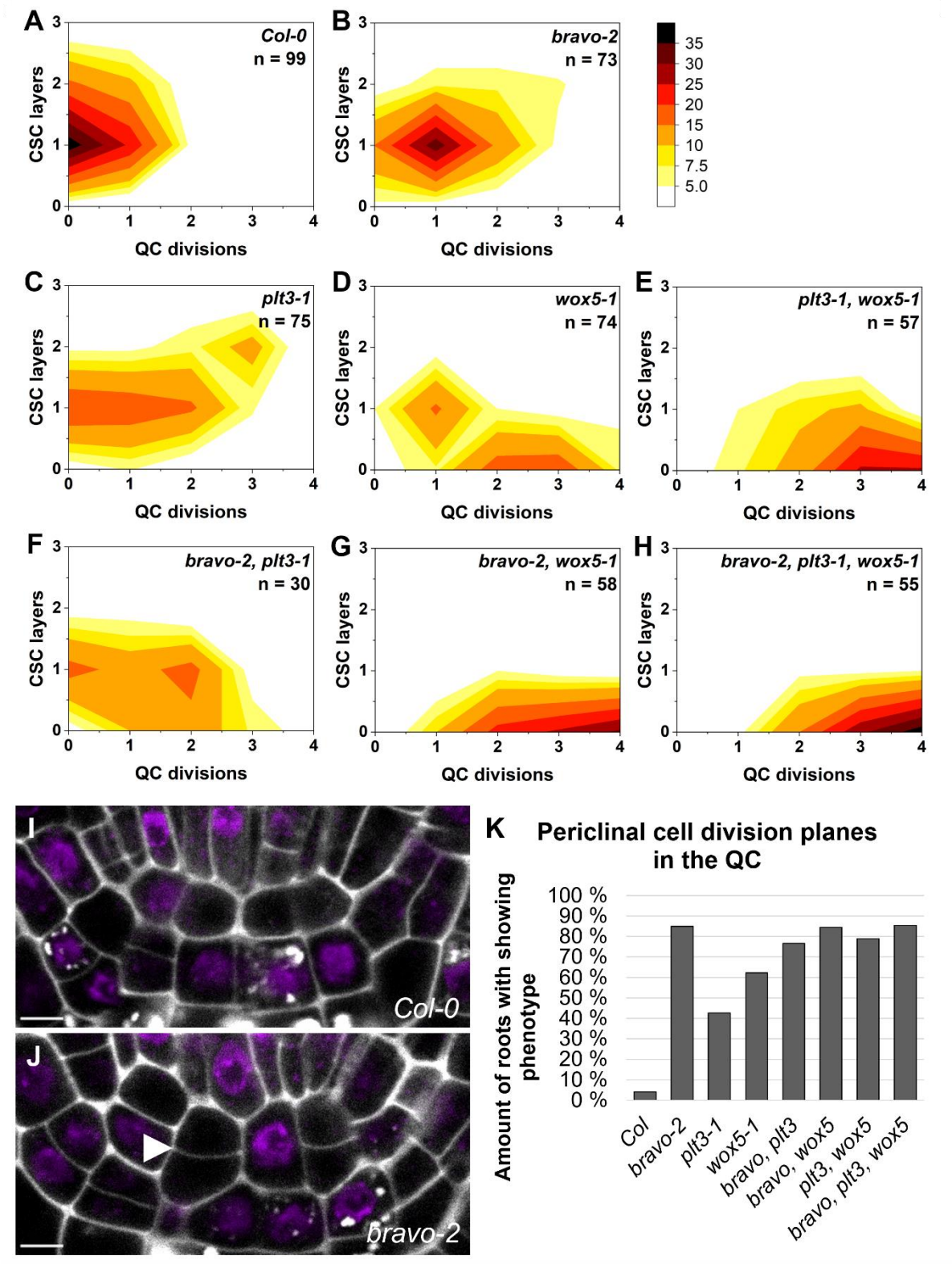

Figure S1: Elevated QC division frequencies negatively correlate to the number of CSC layers. A-H. 2D histograms visualizing the combined results of the SCN staining in the respective genotype showing the number of CSC layers on the y-axis and QC divisions on the x-axis. Darker colours correspond to a higher number of roots showing the phenotype. Number of analysed roots per genotype (biological

replicate) is indicated in each graph and results from 3-5 technical replicates. **I.** Close-up of the QC in the Col-0 WT and **J.** in the *bravo-2* mutant showing an additional periclinal cell division plane (white arrowhead). **K.** Quantification of periclinal cell division planes in the different mutants.

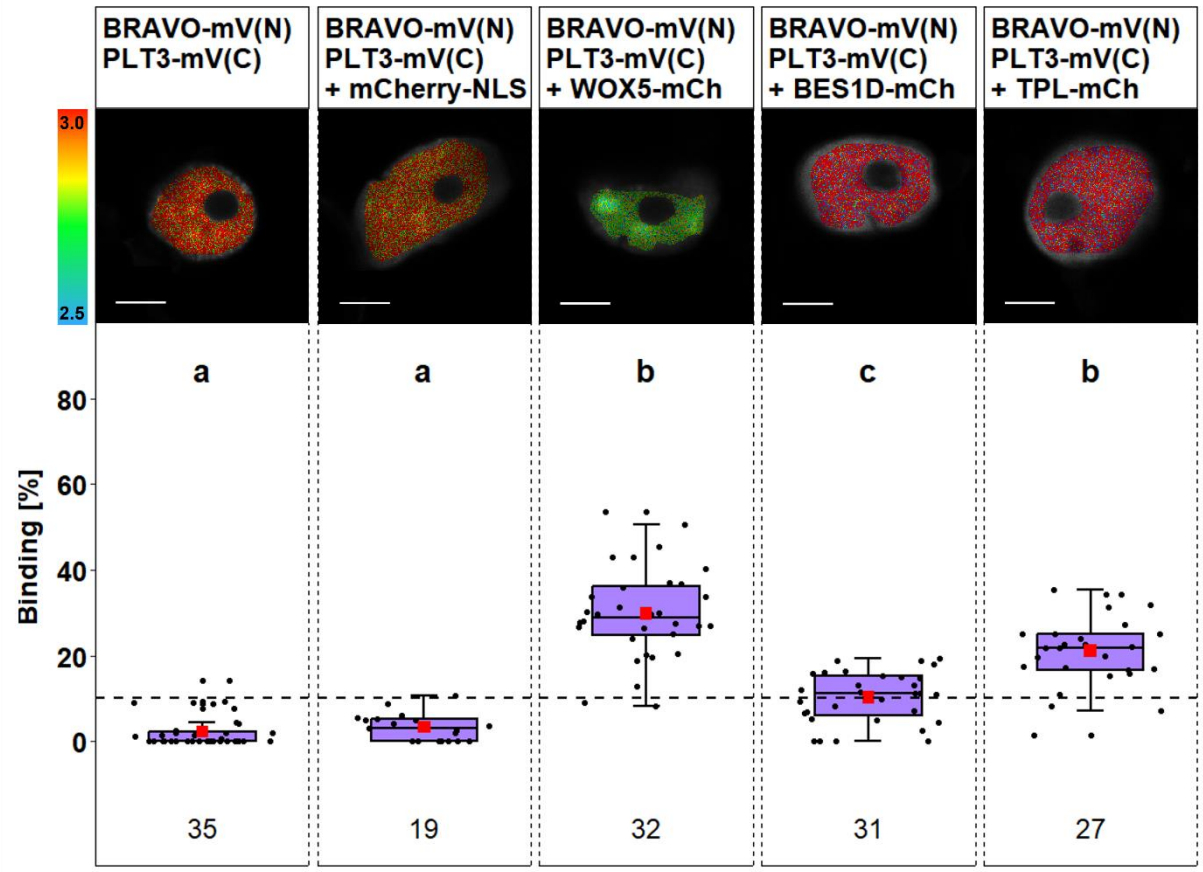

Figure S2: Trimeric complex formation of BRAVO and PLT3 with WOX5, BES1D and TPL. Upper panel: Representative images of fluorescence lifetime imaging microscopy (FLIM) measurements in *N. benthamiana* epidermal leaf cells after a pixel-wise mono- or biexponential fit. The fluorescence lifetime of the donor BRAVO-mV(N) PLT3-mV(C) in presence or absence of the indicated acceptor is color-coded: blue (2.5) refers to low fluorescence lifetime [in ns], red (3.0) indicates high fluorescence lifetime. Scale bar represents 6 µm. **Lower panel:** Binding [%] (magenta) for BRAVO-mV(N) PLT3-mV(C) with or without co-expression of mCherry-NLS, WOX5-mCh, BES1D-mCh or TPL-mCh. Statistical groups were assigned after a non-parametric Kruskal Wallis ANOVA with *post-hoc* Dunn's test ($\alpha = 0.05$). Black dotted line indicates the Binding cut-off of 10 %. Number of analysed nuclei is indicated below each sample and results from 3-4 technical replicates.

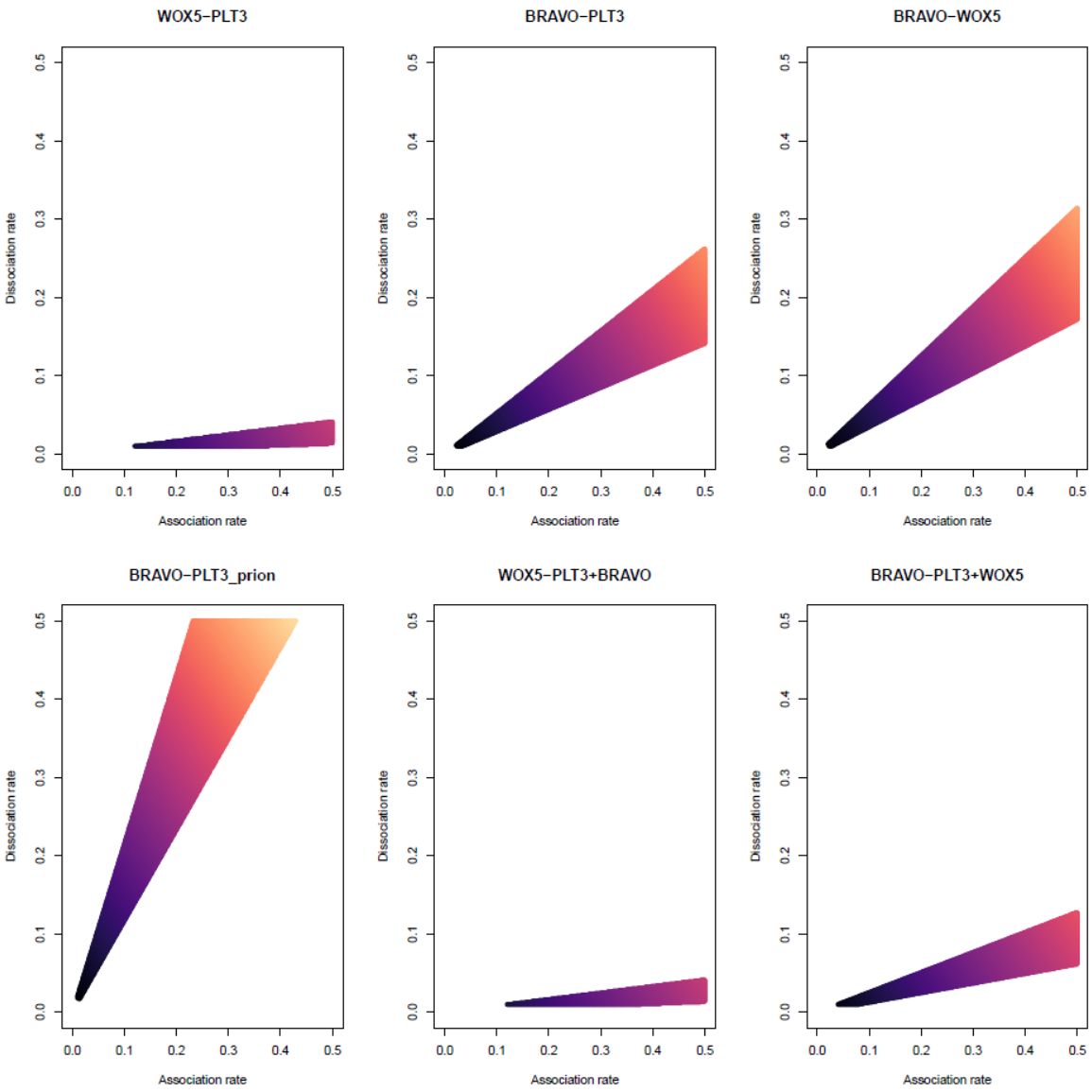

Figure S3: Association and dissociation parameters predicted for the heterodimers and trimeric complex modelled. For each protein complex studied we show the combination of association and dissociation parameters (colored area) that can produce the protein complex formation in agreement with the binding affinities described experimentally.

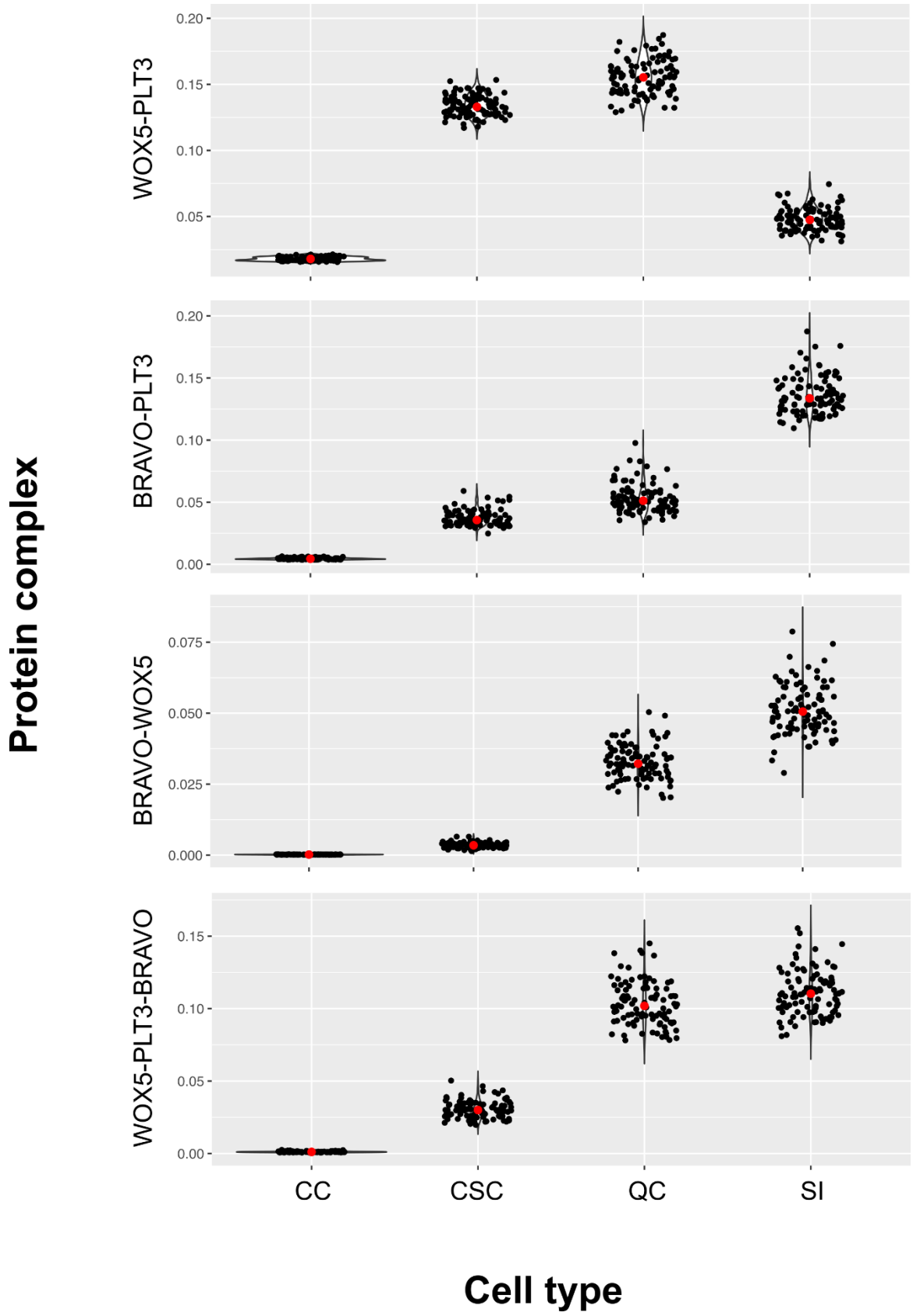

Figure S4: Robustness of the protein complex cell signatures. Simulations of the formation of protein complexes in the cells of the root stem cell niche using 100 different association and dissociation parameter sets. The resulting levels of each

simulation for WOX5-PLT3, BRAVO-PLT3, BRAVO-WOX5 and WOX5-PLT3-BRAVO in each cell type are shown, indicating they are robust to the specific parameters used in the simulations. Mean values shown in red.

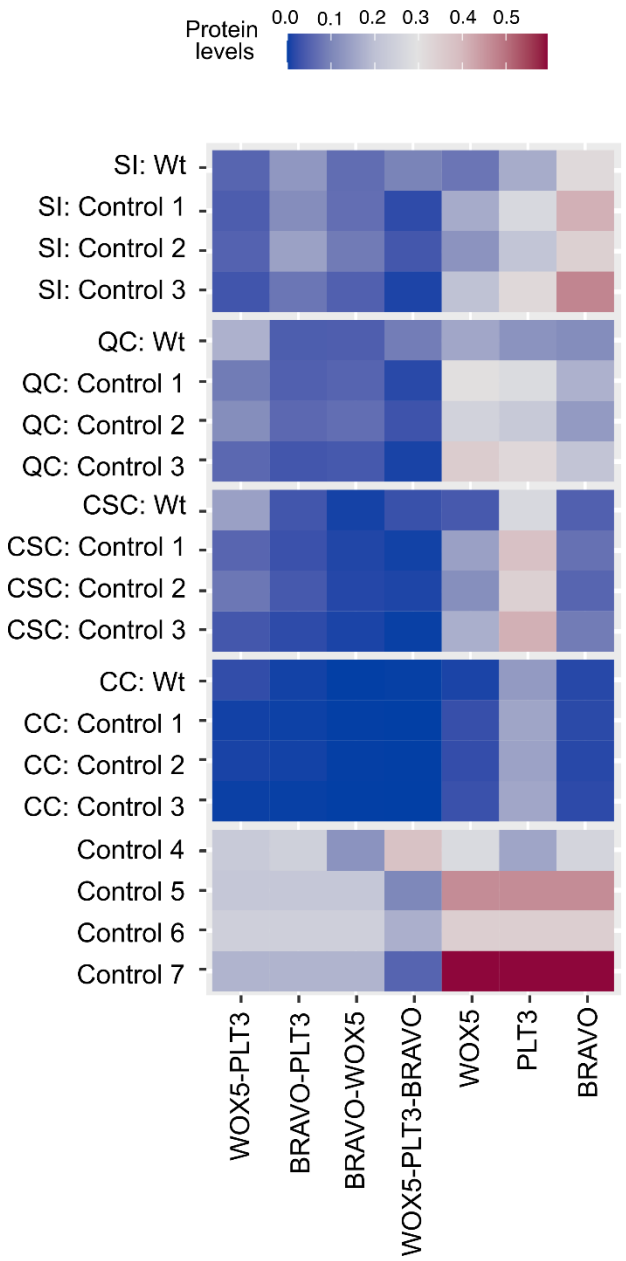

Figure S5:Controls for *in silico* prediction of protein complex signatures in the WT root SCN. For Control 1-3, the experimentally determined protein abundances were used, combined with the assumptions that association and dissociation rates are equal, a higher association and a higher dissociation rate, respectively. For Control 4, experimentally determined association and dissociation rates were used in combination with equal protein abundances among all cell-types and TFs. Controls 5-7 combine equal protein levels with assumed association/dissociation rates from Control 1-3, respectively. Heatmap showing the protein complexes and free protein in the cells of WT simulation. High concentrations are displayed in red, low concentration are displayed in blue. SI: stele initals; QC: quiescent center; CSC: columella stem cells; CC: columella cells.

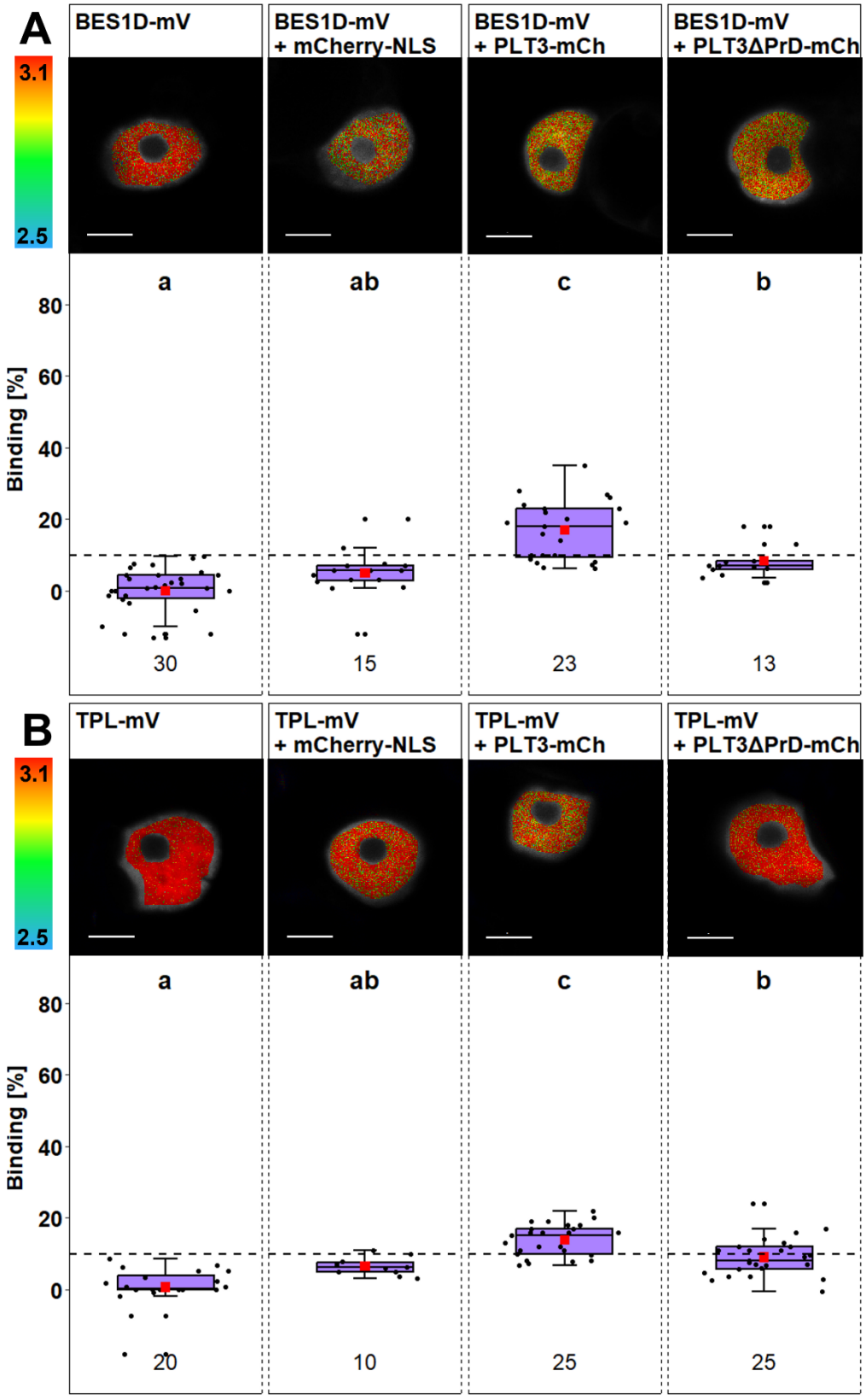

Figure S6: Interaction of PLT3 with BES1D and TPL depends on PrDs found in PLT3. Upper panels: Representative images of fluorescence lifetime imaging microscopy (FLIM) measurements in *N. benthamiana* epidermal leaf cells after a pixel-wise mono- or biexponential fit. The fluorescence lifetime of the donor BES1D-

mV (A) or TPL-mV (B) in presence or absence of the indicated acceptor is color-coded: blue (2.5) refers to low fluorescence lifetime [in ns], red (3.1) indicates high fluorescence lifetime. Scale bar represents 6 µm. Lower panels: Binding [%] (magenta) for BES1D-mV (A) or TPL-mV (B) with or without co-expression of mCherry-NLS, PLT3-mCh or PLT3dPrD-mCh. Statistical groups were assigned separately for experiments with BES1D-mV and TPL-mV after a non-parametric Kruskal Wallis ANOVA with *post-hoc* Dunn's test ($\alpha = 0.05$). Black dotted line indicates the Binding cut-off of 10 %. Number of analysed nuclei is indicated below each sample and results from 2-3 technical replicates.

Table S1: List of primers used for cloning. Italic bases represent overhangs and *Bsa*I recognition sites necessary for GreenGate cloning.

Gene identifier	alias	Primer name	Orientation	Sequence 5'-3' orientation
Promoter modules				
AT5G17800	BRAVO	VS_GG_pBRAVO_F	F	*AAAGGTCTCAACCT*CCACTAACCATTTCGTAA
		VS_GG_pBRAVO_R	R	*AAAGGTCTCATGTT*GTTTCTGGTTTAGGGATTA
CDS in C modules				
AT1G19350	BES1	VS_GG_BES1D_CDS_F	F	*AAAGGTCTCAGGCTTA*ATGACGTCTGACGGAGCAA C
		VS_GG_BES1D_CDS_R	R	*AAAGGTCTCACTGA*ACTATGAGCTTTACCATTTCC
AT5G17800	BRAVO	RD_GG_BRAVO F	F	*AAAGGTCTCAGGCTTA*ATGAATCCAAATC
		RD_GG_BRAVO R	R	*AAAGGTCTCACTGA*GGAAGCTCCAAC
AT1G15750	TPL	VS_GG_TPL_CDS_F	F	*AAAGGTCTCAGGCTTA*ATGTCTTCTCTTAG
		VS_GG_TPL_CDS_R	F	*AAAGGTCTCACTGA*TCTCTGAGGCTG

Table S2: List of primers used for genotyping.

Gene ID	SALK ID	alias	Primer		
			Orientation	Name	Sequence 5'-3'
AT5G17800	SALK_062413	*bravo-2*	F	VS_bravo-2_F	TCCCTTAATCCCTAAACCCAGC
			R	VS_bravo-2_R	CCTGATGCAAGGGTACTATCG
AT3G11260	SALK_038262	*wox5-1*	F	GK_WOX5 F	AAACAGTTGAGGACTTTACATCTGA
			R	WOX5 R	CGGATAATATGTCATAATTCAAAAT
AT5G10510	SALK_127417	*plt3-1*	F	GK_PLT3L	TTGTGATTTGCCATTGACTAAAGGT
			R	GK_PLT3R	GAAAACAGTCCAATGGTCTCACATC

Table S3: List of entry vectors used for GreenGate cloning.

Name	Module (Backbone)	Insert	Reference
pGGB002	B	Omega element	(Lampropoulos et al. 2013)
pGGD007	D	Linker-NLS	
pGGE009	E	UBIQUITIN 10 terminator	
pGGF002	F	BASTA resistance	
pGGG001	G	Adapter	
pGGG002	G	Adapter	
pGGM000	M	Empty intermediate vector	
pGGN000	N	Empty intermediate vector	
pGGZ001	Z	Empty destination vector	
pRD42	C	mVenus	(Burkart et al. 2022)
pRD43	D	mVenus	
pRD53	D	mCherry	
pRD45	A	*WOX5* promoter	
pRD40	C	WOX5 CDS	
pRD41	C	PLT3 CDS	
pRD65	B	Glucocorticoid receptor	
pRD101	C	PLT3dPrD	
pPD161	A	Ubi-XVE oLexA-35S	(Denninger et al. 2019)
pVS125	A	*BRAVO* promoter	This study
pRD135	C	BRAVO CDS	
pVS191	C	BES1D	
pVS84	C	TPL	
pJM81	D	mVenus(N)	(Maika et al. 2023)
pJM82	D	mVenus(C)	
pBLAD011	D	mTurquoise2	

Table S4: List of expression vectors for stable transformation of *A. thaliana* or transient transformation of *N. benthamiana* generated in this study.

Plasmid ID	Construct	GreenGate module							Resistance
		A	B	C	D	E	F	Z	
pVS133	pBRAVO:BRAVO-mV	*BRAVO* promoter	Ω element (pGGB002)	BRAVO	mVenus	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS139	Inducible BES1D-mVenus	Ubi-XVE oLexA-35S	Ω element (pGGB002)	BES1D	mVenus	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS140	Inducible BES1D-mCherry	Ubi-XVE oLexA-35S	Ω element (pGGB002)	BES1D	mCherry	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS141	Inducible BRAVO-mVenus	Ubi-XVE oLexA-35S	Ω element (pGGB002)	BRAVO	mVenus	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS142	Inducible BRAVO-mCherry	Ubi-XVE oLexA-35S	Ω element (pGGB002)	BRAVO	mCherry	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS143	Inducible TPL-mCherry	Ubi-XVE oLexA-35S	Ω element (pGGB002)	TPL	mCherry	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS85	Inducible TPL-mVenus	Ubi-XVE oLexA-35S	Ω element (pGGB002)	TPL	mVenus	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS154	Inducible WOX5-mVenus(N)	Ubi-XVE oLexA-35S	Ω element (pGGB002)	WOX5	mVenus(N)	UBQ10 terminator (pGGE009)	-	pGGM000	Kan
pVS156	Inducible PLT3-mVenus(C)	Ubi-XVE oLexA-35S	Ω element (pGGB002)	PLT3	mVenus(C)	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGN000	Kan
pVS163	Inducible WOX5-mVenus(N)/ Inducible PLT3-mVenus(C)	pVS154 + pVS156						pGGZ001	Spec
pVS167	Inducible nuclear localized mCherry	Ubi-XVE oLexA-35S	Ω element (pGGB002)	mCherry (pGGC015)	linker-NLS (pGGD007)	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS180	Inducible BRAVO-mVenus(N)	Ubi-XVE oLexA-35S	Ω element (pGGB002)	BRAVO	mVenus(N)	UBQ10 terminator (pGGE009)	-	pGGM000	Kan

pVS233	Inducible BRAVO-mVenus(N)/ Inducible PLT3-mVenus(C)	pVS180 + pVS156						pGGZ001	Kan
pVS288	pWOX5:GR-PLT3-mTurquoise2	*WOX5* promoter	GR	PLT3	mT2	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec
pVS289	pWOX5:GR-PLT3ΔPrD-mTurquoise2	*WOX5* promoter	GR	PLT3ΔPrD	mT2	UBQ10 terminator (pGGE009)	BASTA R (pGGF002)	pGGZ001	Spec

Table S5: List of Arabidopsis mutants and transgenic lines used in this study.

Gene ID	Alias	Reference
AT5G17800	*bravo-2*	(Vilarrasa-Blasi et al. 2014)
	Col-0, pBRAVO:BRAVO-mVenus	This study by dipping
AT5G10510	*plt3-1*	(Galinha et al. 2007)
	Col-0, pPLT3:PLT3-mVenus	(Burkart et al. 2022)
AT5G17800, AT5G10510	*bravo-2, plt3-1*	This study by crossing of *bravo-2* and *plt3-1*
AT3G11260	*wox5-1*	(Burkart et al. 2022)
	Col-0, pWOX5:WOX5-mVenus	
AT5G10510, AT3G11260	*plt3-1, wox5-1*	(Burkart et al. 2022)
	plt3-1, pWOX5:GR-PLT3-mTurquoise2	This study by dipping
	plt3-1, pWOX5:GR-PLT3ΔPrD-mTurquoise2	This study by dipping
AT5G17800, AT3G11260	*bravo-2, wox5-1*	(Betegón-Putze et al. 2021)
AT5G17800, AT5G10510, AT3G11260	*bravo-2, plt3-1, wox5-1*	This study by crossing of *bravo-2* and *plt3-1, wox5-1*

Table S6: Fluorescence intensities of *pPLT3:PLT3-mV, pBRAVO:BRAVO-mV* and *pWOX5:WOX5-mV* translational reporter in different cell types corresponding to Fig. 1, 5 and 7.

Fluorescence intensity	Date	Cell type			
		SI	QC	CSC	CC
pPLT3:PLT3-mV	28.11.23	30360.17	37523.45	48567.14	17482.71
		19709.9	18540.11	22274.4	15590.86
		19782.11	16327.93	26233.66	6335.124
		24665.88	22914.56	22039.49	13233.82
		16336.64	14473.61	16777.05	7263.823
		20659.51	17532.76	19131.18	9199.955
		48822.24	37769.87	55574.26	5490.301
		42071.03	23881.81	28888.19	6474.87
		31306.43	28682.1	43367.48	26115.04
		26035.98	24754.96	37376.88	5407.617
	AV	27974.99	24240.11	32022.97	11259.41
	SD	9945.883	7853.973	12737.42	6457.178
	08.12.23	13458.53	12022.34	10693.72	3079.556
		11382.8	19661.37	23237.77	2543.246
		31222.01	28196.38	24778.53	1576.29
		28921.69	24819.56	21161.82	6278.363
		25231.6	12692.34	9225.459	9485.656
		14733.96	15308.52	30900.44	19996.52
		13009.25	19128.18	18887.84	1805.671
		17399.32	20006.95	19149.94	6983.197
		10872.27	8227.07	12223.45	1741.223
		21828.1	21030.97	24277.79	2664.413
	AV	18805.95	18109.37	19453.67	5615.413
	SD	7111.341	5781.51	6587.363	5426.973
	28.12.23	36705.69	30759.92	32179.98	13431.11
		23201.13	22910.14	26746.3	12992.69
		14505.16	16790.7	14650.75	10778.34
		25326.28	16618.53	15902.32	7739.259
		22976.1	22252.79	13183.53	15139.32
		26289.13	34416.08	46981.29	13944.07
		23456.61	45225.47	45902.98	7467.853
		19359.14	19409.83	23114.97	23172.93
	AV	23977.41	26047.93	27332.76	13083.19
	SD	5938.235	9373.698	12570.98	4640.888
	Overall AV	23267.05	22671.05	25904.29	9224.714
	Overall SD	8745.45	8164.877	11578.14	6400.249
pWOX5:WOX5-mV	**28.11.23**	29201.12	45834.2	10795.79	896.549
		13869.69	21386.9	8486.974	1496.997
		19027.65	28070.95	7576.267	779.7283
		14906.16	27262.89	9271.191	685.0723
		15691.41	27641.05	6953.646	687.679
		17316.21	20991.05	10378.01	705.1347

		11098.75	30414.8	9765.741	766.4405
		29355.06	22623.3	7448.115	882.8665
		18739.97	22616.32	9814.987	1002.133
		13616.57	17752.29	12525.81	7864.905
	AV	18282.26	26459.37	9301.653	1576.75
	SD	5953.816	7460.556	1638.761	2108.523
	08.12.23	11408.16	12757.81	7483.419	532.5793
		14144.85	17938.5	8482.929	958.597
		18676.1	20097.02	12921.63	838.317
		18215.11	22406.33	10450.67	730.0777
		12329.53	17780.14	8244.796	3459.093
		32552.77	32325.28	15897.64	8156.247
		18057.62	34627.05	17197.87	833.5587
		20081.02	33351.82	12183.4	2112.58
		16962.96	27887.07	13940.99	854.592
		11985.38	14764.86	6683.364	731.142
	AV	17441.35	23393.59	11348.67	1920.678
	SD	5841.4	7655.123	3466.346	2246.346
	28.12.23	18809.39	21126.97	13228.5	969.778
		18091.15	21354.1	13364.58	661.5485
		13782.29	25015.66	7060.959	837.938
		11749.74	32733.76	10815.74	2313.319
		16980.22	19147.65	10490.34	719.408
		16397.84	28137.24	15536.71	1107.079
		17359.42	26238.14	10937.61	680.671
		16533.92	36878.85	15549.16	7561.397
	AV	16213	26329.05	12122.95	1856.392
	SD	2183.395	5708.609	2682.338	2214.819
	Overall AV	16790.78	25132.08	11061.31	1684.39
	Overall SD	5507.95	7039.065	3596.461	2105.804
pBRAVO:BRAVO-mV	**28.11.23**	33296	16940.47	4615.491	852.569
		32465.25	12767.84	8112.653	989.9733
		36508.05	19942.11	14826.77	1133.772
		31225.91	18182.72	8115.524	919.5017
		40549.32	20651.28	8776.193	1081.686
		40143.53	29515.55	8153.343	1102.827
		19431.36	10567.79	3988.657	695.031
		29660.65	12654.5	4704.077	1479.854
		28870.52	16931.86	3053.96	872.8765
		31988.38	16361	8163.813	1257.115
	AV	32413.9	17451.51	7251.048	1038.52
	SD	5777.106	5065.289	3233.365	213.1088
	08.12.23	17139.23	12128.37	3986.173	845.2763
		35034.8	21779.82	10615.84	1246.433
		32923.36	12882.26	6763.008	946.799
		19276.64	14514.07	9689.346	906.56
		25266.62	12037.34	6404.131	734.922

		41025.65	18926.21	7023.33	1303.169
		24780.18	10123.88	3126.593	844.1405
		39899.04	18246.41	10925.48	1296.336
		22975.67	13452.88	11498.59	1244.351
		31024.35	13617	9103.976	1312.867
	AV	28934.55	14770.82	7913.646	1068.085
	SD	7890.066	3481.702	2766.423	219.4884
	28.12.23	46147.85	26669.37	16433.59	1442.835
		49948.21	7967.577	2823.43	770.814
		39406.01	34224.94	6801.504	1497.628
		41437.48	16972.48	5323.483	1414.79
		25584.47	9576.138	2069.954	805.6805
		40467.97	9512.593	5478.113	1207.251
		42555.79	10385.78	5205.178	1349.889
		30363.89	13326.26	9106.051	1152.85
	AV	39488.96	16079.39	6655.162	1205.217
	SD	7454.075	8898.174	4222.165	264.0782
	Overall AV	33047.28	15892.74	6833.518	1058.715
	Overall SD	7897.687	6132.839	3588.269	257.7053

AV: average, STD: standard deviation.

Table S7: Average number of QC divisions and CSC layers per root related to Fig. 2 and S1.

Genotype	Average number of QC divisions per root	Average number of CSC layers per root	Number of analysed roots
Col-0	0.535354	1.282828	99
bravo-2	1.30137	1.123288	73
plt3-1	1.386667	1.293333	75
wox5-1	1.90541	0.594595	74
bravo, plt3	1.5333333	0.73333333	30
bravo, wox5	2.844827586	0.103448276	58
plt3, wox5	2.7719298	0.2631579	57
bravo, plt3, wox5	3.145454545	0.163636364	55

Table S8: Ratio of periclinal cell division planes in the QC related to Fig. S1.

Genotype	Periclinal cell division planes in the QC [%]	Number of analysed roots
Col-0	4	99
bravo-2	85	73
plt3-1	43	75
wox5-1	62	78
bravo, plt3	77	30
bravo, wox5	84	59
plt3, wox5	79	57
bravo, plt3, wox5	85	55

Table S9: Measured FRET efficiency and Binding values related to Fig. 3, 5 and 7.

Sample	**BRAVO-mV**		**BRAVO-mV mCherry-NLS**		**BRAVO-mV PLT3-mCh**		**BRAVO-mV BES1D-mCh**		**BRAVO-mV WOX5-mCh**		**BRAVO-mV TPL-mCh**	
Date	**FRET E**	**Binding**	**FRET E**	**Binding**	**FRET E**	**Binding**	**FRET E**	**Binding**	**FRET E**	**Binding**	**FRET E**	**Binding**
20.12.19	80.00	3.00			54.00	34.00						
	80.00	1.70			51.00	33.00						
	80.00	2.40			56.00	35.00						
	80.00	7.10			54.00	30.00						
	80.00	5.30			60.00	40.00						
	80.00	2.50			53.00	45.00						
	80.00	8.00			57.00	35.00						
	80.00	8.90			53.00	40.00						
	80.00	5.10			58.00	32.00						
	78.00	8.00			59.00	34.00						
04.02.20	9.88	-11.00					80.00	9.20				
	9.88	-17.00					0.97	7.00				
	17.00	7.40					0.66	37.00				
	10.00	-0.30					0.90	13.00				
	71.00	6.30					0.49	34.00				
	80.00	6.90					0.93	15.00				
	80.00	8.20					1.10	22.00				
	9.88	-23.00					0.64	40.00				
	67.00	4.30					1.30	9.05				
	16.00	5.00										
17.02.20	80.00	2.50	45.00	11.00			48.00	29.00	58.00	9.60	43.00	24.00
	80.00	0.51	43.00	8.41			48.00	25.00	55.00	27.00	39.00	27.00
	41.00	8.20	63.00	8.90			46.00	35.00	64.00	14.00	37.00	30.00
	80.00	2.40	50.00	15.00			47.00	19.00	61.00	14.00	46.00	28.00
	10.10	-11.00	53.00	14.00			41.00	29.00	56.00	33.00	40.00	29.00
	75.00	2.20					42.00	30.00	58.00	19.00	43.00	30.00
	80.00	1.00					45.00	33.00	59.00	27.00	40.00	34.00
	80.00	4.10					45.00	47.00	51.00	7.30	42.00	32.00

	80.00	1.40					45.00	41.00	64.00	7.00	49.00	20.00
	80.00	6.70					48.00	49.00	65.00	11.00	38.00	29.00
							41.00	36.00	40.00	24.00	48.00	27.00
							45.00	41.00	49.00	27.00	44.00	32.00
							48.00	42.00	52.00	31.00	77.00	73.00
							45.00	37.00	50.00	39.00	43.00	37.00
							44.00	39.00	55.00	61.00	43.00	34.00
17.08.20	80.00	6.40	80.00	12.00	74.00	8.70			79.00	15.00	59.00	16.00
	80.00	8.20	66.00	9.60	61.00	28.00			66.00	10.00	57.00	18.00
	80.00	11.00	68.00	11.00	80.00	10.00			65.00	17.00	55.00	23.00
	80.00	11.00	80.00	8.90	80.00	8.70			56.00	24.00	56.00	22.00
	80.00	14.00	80.00	13.00	73.00	10.70			55.00	26.00	56.00	20.00
	80.00	5.50	77.00	8.70	77.00	12.00			63.00	14.00	50.00	26.00
	80.00	6.40	80.00	12.00	80.00	9.60					76.00	10.00
	80.00	3.50	78.00	15.00	62.00	16.00					48.00	25.00
	80.00	6.50			55.00	24.00					53.00	20.80
	80.00	3.20			52.00	25.00					52.00	23.00
27.06.22	35.00	1.10	63.00	1.40	49.00	14.00	47.00	13.00	44.00	13.00	44.00	17.00
	80.00	3.50	80.00	3.90	45.00	40.00	45.00	21.00	59.00	9.10	43.00	25.00
	78.00	5.00	63.00	2.40	43.00	26.00	44.00	19.00	43.00	18.00	38.00	29.00
	80.00	-0.15	54.00	2.10	48.00	19.00	39.00	18.00	48.00	53.00	45.00	20.00
	9.92	-2.40	61.00	5.70	47.00	32.00	43.00	29.00	45.00	27.00	40.00	30.00
	65.00	3.10	37.00	4.60	46.00	39.00	45.00	25.00	52.00	56.00	41.00	23.00
	79.00	3.80			43.00	32.00	45.00	23.00	55.00	9.10	37.00	27.00
	73.00	1.20			47.00	42.00	56.00	15.00	56.00	13.00	41.00	17.00
	9.92	-16.00			41.00	44.00	45.00	9.50	45.00	30.00	39.00	30.00
	9.92	-15.00			39.00	40.00	42.00	41.00	42.00	8.40	35.00	27.00
N	**50.00**	**50.00**	**19.00**	**19.00**	**30.00**	**30.00**	**34.00**	**34.00**	**31.00**	**31.00**	**35.00**	**35.00**
AV	**63.49**	**2.33**	**64.26**	**8.82**	**56.57**	**27.96**	**35.76**	**27.40**	**55.16**	**22.37**	**46.77**	**26.71**
STD	**27.50**	**7.43**	**13.81**	**4.26**	**11.94**	**11.69**	**20.41**	**11.85**	**8.45**	**14.08**	**9.66**	**9.82**

N: number of observations, AV: average, STD: standard deviation.

Table S10: FRET efficiencies and Binding related to Fig. 4 and 5.

Date	**WOX5-mV(N) PLT3-mV(N)**		**WOX5-mV(N) PLT3-mV(N) mCherry-NLS**		**WOX5-mV(N) PLT3-mV(N) BRAVO-mCh**		**WOX5-mV(N) PLT3-mV(N) BES1D-mCh**		**WOX5-mV(N) PLT3-mV(N) TPL-mCh**	
	FRET E	**Binding**	**FRET E**	**Binding**	**FRET E**	**Binding**	**FRET E**	**Binding**	**FRET E**	**Binding**
16.03.2020	80.00	4.90			55.00	23.00	59.00	11.00	39.00	33.00
	80.00	6.50			50.00	52.00	53.00	18.00	39.00	15.00
	80.00	68.00			51.00	42.00	43.00	29.00	44.00	25.00
	80.00	-2.30			47.00	34.00	46.00	19.00	34.00	34.00
	10.10	-7.00			48.00	48.00	55.00	15.00	38.00	30.00
	80.00	8.90			46.00	45.00	61.00	33.50	40.00	26.00
	80.00	6.00			45.00	38.00	42.00	20.00	49.00	25.00

	78.00	8.80			52.00	50.00	48.00	24.00	48.00	18.00
	79.00	4.50			49.00	39.00	45.00	26.00	43.00	22.00
	80.00	5.10			46.00	36.00	43.00	33.00	39.00	31.00
							51.00	35.00	43.00	34.00
							44.00	39.00	48.00	29.00
							44.00	23.00	44.00	51.00
							46.00	28.00	48.00	20.00
									41.00	29.00
18.12.2020	9.96	-18.00	65.00	4.70	53.00	43.00	57.00	7.20	33.00	16.00
	9.96	-11.00	63.00	7.00	51.00	45.00	43.00	15.00	34.00	26.00
	80.00	-4.20	61.00	5.20	51.00	19.00	41.00	15.00	32.00	24.00
	9.96	-4.70	51.00	8.80	43.00	21.00	49.00	12.00	37.00	26.00
	9.96	-7.60	48.00	5.00	45.00	30.00	41.00	28.00	41.00	13.00
	73.00	2.60			48.00	48.00	45.00	13.00	33.00	28.00
	80.00	4.20			48.00	38.00	46.00	7.80	39.00	21.00
	54.00	2.20			51.00	25.00	55.00	6.05	41.00	14.00
	71.00	3.20			49.00	27.00	44.00	15.00	27.00	10.00
	18.00	3.70			45.00	36.00	39.00	10.00	35.00	20.00
							42.00	14.00		
							50.00	14.00		
							37.00	24.00		
							50.00	12.00		
							39.00	12.00		
21.12.2020	9.95	-15.00	12.00	-2.70	53.00	42.00	42.00	18.00	39.00	17.00
	9.95	-5.20	9.95	-9.10	51.00	48.00	41.00	13.00	31.00	29.00
	10.00	-3.60	10.00	4.30	46.00	34.00	56.00	6.90	43.00	19.00
	48.00	-0.40	51.00	5.20	47.00	25.00	44.00	22.00	45.00	18.00
	69.00	2.60	63.00	1.00	51.00	12.00	42.00	17.00	55.00	9.30
	17.00	8.30			46.00	18.00	39.00	16.00	42.00	14.00
	57.00	5.50			51.00	53.00	36.00	12.00	36.00	31.00
	9.95	-2.00			46.00	40.00	45.00	20.00	37.00	24.00
	9.95	-8.30			47.00	40.00	40.00	20.00	41.00	15.00
	9.95	-7.00			50.00	38.00	37.00	23.00	36.00	19.00
							41.00	16.00		
							38.00	26.00		
AV	**46.46**	**1.62**	**43.40**	**2.94**	**48.70**	**36.30**	**45.34**	**18.74**	**39.83**	**23.29**
SD	**31.88**	**14.13**	**22.14**	**5.01**	**2.88**	**10.73**	**6.24**	**8.03**	**5.75**	**8.29**
N	**30.00**	**30.00**	**10.00**	**10.00**	**30.00**	**30.00**	**41.00**	**41.00**	**35.00**	**35.00**

N: number of observations, AV: average, STD: standard deviation.

Table S11: FRET efficiencies and Binding related to Fig. S2 and 5.

Date	BRAVO-mV(N) PLT3-mV(N)		BRAVO-mV(N) PLT3-mV(N) mCherry-NLS		BRAVO-mV(N) PLT3-mV(N) WOX5-mCh		BRAVO-mV(N) PLT3-mV(N) BES1D-mCh		BRAVO-mV(N) PLT3-mV(N) TPL-mCh	
	Binding	FRET E	Binding	FRET E	Binding	FRET E	Binding	FRET E	Binding	FRET E
03.07.23	0.00	10.17	0.00	8.47	31.40	44.41	7.10	10.17	11.00	49.15
	0.00	80.03	2.00	80.03	40.29	42.37	0.00	10.17	16.49	31.53
	2.35	80.03	0.00	8.47	35.98	42.81	0.00	10.17	1.46	80.03
	0.00	10.17	0.00	80.00	27.89	46.78	0.00	79.66	22.00	13.22
	0.00	80.03	0.00	10.17	30.09	38.98	0.00	10.17	25.10	14.58
	0.66	10.17					2.50	80.03	8.20	10.17
	1.33	10.17							7.02	10.17
05.07.23	0.00	80.00	2.51	79.97	26.61	46.67	6.72	43.33		
	0.00	10.00	0.00	10.00	26.49	40.67	11.10	26.67		
	0.00	10.00	10.60	15.67	8.29	51.00	16.37	31.67		
	0.00	79.97	4.10	60.00	23.92	33.33	18.80	38.33		
	0.00	10.00			36.81	46.53	13.05	35.67		
	14.20	10.00			43.11	43.00				
	1.80	10.33			8.91	63.33				
	0.00	10.00								
04.12.23	0.00	10.26	5.34	14.24	25.03	36.75	5.25	80.03	22.54	31.46
	1.85	30.46	5.97	25.17	50.54	48.01	13.14	35.43	19.53	36.09
	4.00	17.22	3.49	80.03	42.89	45.03	15.10	25.17	34.21	24.83
	9.00	10.26	2.99	10.26	27.60	42.72	4.95	40.40	35.26	26.16
	0.00	10.26	5.00	80.03	53.65	51.32	19.30	35.43	15.13	42.05
	1.06	27.15			45.49	45.43	17.91	28.81	21.90	32.45
	9.30	11.59			12.83	46.69	15.72	49.34	31.38	27.15
	0.00	80.13			19.65	45.36	14.77	45.36	25.12	31.79
	8.80	26.82			29.73	43.71	15.30	37.09	24.00	37.75
	1.87	80.03			36.98	44.70	11.88	37.75	34.16	29.80
16.12.23	0.00	79.93	5.30	10.03	33.80	48.16	11.34	39.80	17.02	56.52
	0.00	10.03	4.90	79.97	20.27	45.48	9.20	24.75	22.69	57.19
	0.00	10.03	8.70	79.97	29.88	43.48	11.19	42.14	16.94	49.16
	4.40	10.03	0.00	10.03	26.93	39.46	16.09	42.14	20.00	48.83
	0.00	10.03	0.00	10.03	28.11	45.15	18.74	39.80	15.68	61.20
	0.00	10.03			29.75	45.48	6.64	29.77	24.97	36.45
	8.86	10.03			33.79	50.84	4.34	29.77	31.80	29.10
	1.50	80.00			20.37	38.13	10.94	38.46	17.50	44.48
	0.00	10.03			26.92	46.82	8.10	43.14	27.25	28.76
	7.59	20.74			18.77	45.48	9.75	29.77	21.80	39.13
AV	2.24	30.18	3.21	39.61	29.77	44.94	10.17	37.11	21.12	36.27
SD	3.64	29.78	3.10	32.79	10.57	5.13	5.93	17.45	8.28	15.98
N	35.00	35.00	19.00	19.00	32.00	32.00	31.00	31.00	27.00	27.00

N: number of observations, AV: average, STD: standard deviation.

Table S12: Additional FRET efficiencies and Binding used for Fig. 5.

Sample	WOX5-mV PLT3-mCh	
Date	FRET E	Binding
20.12.2019	71	11
	53	44
	57	34
	56	40
	56	43
	62	27
	55	48
	54	41
	56	26
	52	36
AV	57.2	35
SD	5.268776	10.47855
N	10	10

N: number of observations, AV: average, STD: standard deviation.

Table S13: FRET efficiencies and Binding related to Fig. 6 and 7.

	BRAVO-mV		BRAVO-mV mCherry-NLS		BRAVO-mV PLT3-mCh		BRAVO-mV PLT3ΔPrD-mCh	
Date	FRET E	Binding	FRET E	Binding	FRET E	Binding	FRET E	Binding
23.03.2021	9.71	0.00			48	27	52	14
	9.71	0.00			51	19	49	23
	70.00	2.10			48	33	76	4.8
	76.00	3.40			58	8.2	79.9	5.6
	80.00	8.50			42	17	59	6.3
	10.00	0.00			43	7.7	79.9	4.7
	48.00	0.50			53	21	63	4.5
	9.71	0.00			45	35	43	7.9
	79.90	3.60			43	27	43	29
	9.71	0.00			56	22	43	44
06.04.2021	10.00	-10.00	56.00	0.81	61.00	7.50	54.00	7.10
	11.00	-3.70	46.00	1.90	78.00	3.70	65.00	2.90
	10.10	-8.00	80.00	1.00	43.00	27.00	42.00	23.00
	15.00	6.20	67.00	3.30	47.00	21	41.00	18.00
	14.00	10.00	71.00	3.70	42.00	25.00	80.00	0.50
	10.00	-1.50			48.00	24	9.70	-0.80
	33.00	4.30			48.00	19.00	64.00	2.60
	80.00	-3.60			51.00	19.00		
	80.00	0.18			54.00	20.00		
	14.00	5.00			46.00	38.00		
21.05.2021	80.00	7.80	62.00	2.80	50.00	29.00	46.00	12
	76.00	5.60	58.00	8.60	47.00	13.00	45.00	21.00
	45.00	0.29	35.00	7.30	52.00	32.00	45.00	9.10
	69.00	9.00	61.00	4.80	49.00	16.00	34.00	5.60
	54.00	4.30	56.00	4.90	47.00	23	35.00	8.80
	36.00	7.10			49.00	29.60	47.00	6.60
	9.93	0.00			33.00	13.00	39.00	12.00
	9.93	0.01			47.00	43.00	37.00	19.00
	9.93	0.01			47.00	50.60	40.00	14.00
	9.93	0.01			47.00	15.00	29.00	14.00
							37.00	8.90
AV	35.99	1.70	59.20	3.91	49.10	22.84	49.20	11.72
STD	29.38	4.59	11.94	2.43	7.50	10.53	16.38	9.58
n	30.00	30.00	10.00	10.00	30.00	30.00	28.00	28.00

N: number of observations, AV: average, STD: standard deviation.

Table S14: FRET efficiency and Binding values corresponding to Figure S4.

Date	TPL-mV		TPL-mV mCherry-NLS		TPL-mV PLT3-mCh		TPL-mV PLT3ΔPrD-mCh	
	FRET E	Binding	FRET E	Binding	FRET E	Binding	FRET E	Binding
12.04.2021	10.10	0.01	42.00	6.20	58.00	7.40	32.00	8.00
	10.10	0.00	53.00	3.50	40.00	16.00	35.00	7.00
	10.10	0.00	14.00	5.00	35.00	13.00	35.00	9
	10.00	0.01	47.00	6.90	36.00	8.00	41.00	7.60
	49.00	0.65	24.00	5.00	25.00	11.00	32.00	6.00
	55.00	2.20			41.00	16.00	46.00	12.00
	73.00	6.30			29.00	17.00	33.00	14.00
	10.10	0.01			30.00	9.50	50.00	9.7
	10.00	0.01			47.00	8.00	32.00	17.00
	30.00	5.10			35.00	12.00	43.00	11.00
					34.00	16.00	34.00	11.00
					25.00	19.00	36.00	16.00
					36.00	20.00	35.00	7.10
					34.00	18.00	27.00	6.80
					29.00	22.00	44.00	24.00
06.04.2021	10.00	-18.00	74.00	3.10	43.00	7.70	35.00	2.60
	10.00	-7.30	40.00	10.00	50.00	6.70	51.00	3.60
	10.00	5.10	47.00	7.70	42.00	12.00	64.00	2.90
	10.00	-0.80	39.00	6.00	46.00	9.80	43.00	11.00
	10.00	8.60	48.00	11.00	42.00	16.00	59.00	3.50
	11.00	3.40			46.00	11.00	26.00	4.60
	15.00	1.80			48.00	15.00	70.00	5.80
	10.00	-2.00			44.00	17.00	47.00	13.00
	27.00	0.86			47.00	19.00	47.00	12.00
	10.00	6.80			29.00	18.00	80.00	-0.48
AV	19.52	0.64	42.80	6.44	38.84	13.80	43.08	8.99
STD	17.91	5.51	15.32	2.44	8.31	4.42	13.19	5.26
n	20.00	20.00	10.00	10.00	25.00	25.00	25.00	25.00

N: number of observations, AV: average, STD: standard deviation.

Table S15: FRET efficiency and Binding values corresponding to Fig. S4.

Date	BES1-mV		BES1-mV mCherry-NLS		BES1-mV PLT3-mCh		BES1-mV PLT3ΔPrD-mCh	
	FRET E	Binding	FRET E	Binding	FRET E	Binding	FRET E	Binding
21.05.2021	9.91	-10.00	80.00	20.00	68.00	16.00	34.00	13.00
	10.00	-1.30	48.00	2.60	48.00	7.70	44.00	7.10
	80.00	0.95	46.00	5.70	45.00	9.90	54.00	8.00
	39.00	0.78	45.00	12.00				
	9.91	-2.40	50.00	7.60				
	54.00	3.40						
	18.00	4.40						
	9.91	-13.00						
	9.91	-12.00						
	9.91	-5.60						
27.04.2021	80.00	3.40	39.00	0.73	76.00	6.50	57.00	4.40
	80.00	0.00	60.00	5.70	59.00	8.90	54.00	6.30
	10.10	0.00	80.10	4.30	48.00	19.00	57.00	7.10
	10.10	0.00	80.00	1.00	43.00	23.00	45.00	18.00
	59.00	4.40	65.00	3.20	51.00	24.00	47.00	18.00
	67.00	4.40			45.00	35.00	13.00	2.20
	70.00	9.20			66.00	8.10	76.00	6.00
	55.00	9.70			55.00	6.10	56.00	3.50
	80.00	2.30			49.00	9.90	67.00	6.70
	80.00	2.00			46.00	22.00	51.00	8.3
28.05.2021	80.00	-3.50	10.00	-12.00	56.00	9.90		
	80.00	0.67	77.00	3.2	41.00	18.00		
	10.00	-12.00	63.00	7.00	45.00	20.00		
	80.00	7.50	49.00	7.00	47.00	26.00		
	80.00	-1.40	48.00	5.60	65.00	7.30		
	10.00	-12.00			42.00	23.00		
	80.00	1.40			42.00	27.00		
	80.00	6.60			45.00	28.00		
	57.00	7.20			48.00	19.00		
	64.00	5.10			46.00	14.00		
AV	48.76	0.01	56.01	4.91	51.13	16.88	50.38	8.35
STD	30.59	6.34	18.55	6.46	9.34	8.09	14.74	4.81
n	30.00	30.00	15.00	15.00	23.00	23.00	13.00	13.00

N: number of observations, AV: average, STD: standard deviation.

Table S16: Ratio of periclinal cell divisions in the QC related to Fig. 7.

Treatment	Genotype	Periclinal cell division planes in the QC [%]	Number of analysed roots
DMSO	*Col-0*	27	44
	plt3-1	73	45
	plt3-1, pWOX5:GR-PLT3-mT2	83	41
	plt3-1, pWOX5:GR-PLT3dPrD-mT2	94	36
DEX	*Col-0*	28	39
	plt3-1	87	46
	plt3-1, pWOX5:GR-PLT3-mT2	67	45
	plt3-1, pWOX5:GR-PLT3dPrD-mT2	100	36

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