

The ovule phenotypes were investigated 30-40 hours after pollinating *ec1-RNAi* and wild type pistils with the sperm cell marker line HTR10-mRFP1. Each of the pollinated pistils (containing approximately 40 to 55 ovules) was treated as an individual experiment. Targeting efficiency was estimated as percentage of pollen tube-targeted ovules. Experiments showing less than 70% pollen tube targeting efficiencies were not considered for evaluation. Pollinated pistils were dissected in 100 mM phosphate buffer (pH 7.4) and analyzed by fluorescence microscopy for presence of fluorescent sperm cell (SC) nuclei within the female gametophyte. Ovule phenotypes were categorized into: **Category I**, fertilized ovules with no sperm cells visible; **Category II**, ovules with two unfused sperm cells visible; **Category III**, ovules with four unfused sperm cells visible.

Plant line	Pistil #	total number of counted ovules		targeting efficiency %	untargeted ovules		C I: fertilized; no SC			CII: 2 unfused SC			C III: 4 unfused SC			% unfused sc (total)
		total # of ovules	total # of targeted		not targeted	% of all	no sc, dev.	% of all	% of targeted	2 scs, dev.	% of all	% of targeted	4 sc	% of all	% of targeted	
wild type	1	49	37	75,51	12	24,49	36	73,47	97,30	1	2,04	2,70	0	0,00	0,00	2,56
wild type	2	49	40	81,63	9	18,37	38	77,55	95,00	2	4,08	5,00	0	0,00	0,00	
wild type	3	48	35	72,92	13	27,08	35	72,92	100,00	0	0,00	0,00	0	0,00	0,00	
wild type	4	31	31	100,00	0	0,00	30	96,77	96,77	1	3,23	3,23	0	0,00	0,00	
wild type	5	45	31	68,89	14	31,11	31	68,89	100,00	0	0,00	0,00	0	0,00	0,00	
wild type	6	47	45	95,74	2	4,26	43	91,49	95,56	2	4,26	4,44	0	0,00	0,00	
MEAN		269	219			17,55		97,44			2,56			0,00		
Standard error						5,19		0,88			0,88			0,00		
ec1-RNAi-4	1	48	43	89,58	5	10,42	22	45,83	51,16	14	29,17	32,56	7	14,58	16,28	43,52
ec1-RNAi-4	2	44	34	77,27	10	22,73	19	43,18	55,88	14	31,82	41,18	1	2,27	2,94	
ec1-RNAi-4	3	46	41	89,13	5	10,87	25	54,35	60,98	12	26,09	29,27	4	8,70	9,76	
ec1-RNAi-4	4	48	40	83,33	8	16,67	22	45,83	55,00	15	31,25	37,50	3	6,25	7,50	
ec1-RNAi-4	5	43	34	79,07	9	20,93	23	53,49	67,65	8	18,60	23,53	3	6,98	8,82	
ec1-RNAi-4	6	27	25	92,59	2	7,41	14	51,85	56,00	5	18,52	20,00	6	22,22	24,00	
ec1-RNAi-4	7	47	35	74,47	12	25,53	21	44,68	60,00	9	19,15	25,71	5	10,64	14,29	
ec1-RNAi-4	8	37	36	97,30	1	2,70	19	51,35	52,78	9	24,32	25,00	8	21,62	22,22	
ec1-RNAi-4	9	47	45	95,74	2	4,26	22	46,81	48,89	12	25,53	26,67	11	23,40	24,44	
MEAN		387	333			13,50		56,48			29,05			14,47		
Standard error						2,77		1,90			2,29			2,61		
ec1-RNAi-9	1	47	36	76,60	11	23,40	17	36,17	47,22	17	36,17	47,22	2	4,26	5,56	46,30
ec1-RNAi-9	2	53	42	79,25	11	20,75	20	37,74	47,62	18	33,96	42,86	4	7,55	9,52	
ec1-RNAi-9	3	47	38	80,85	9	19,15	21	44,68	55,26	14	29,79	36,84	3	6,38	7,89	
ec1-RNAi-9	4	42	39	92,86	3	7,14	19	45,24	48,72	12	28,57	30,77	8	19,05	20,51	
ec1-RNAi-9	5	46	44	95,65	2	4,35	25	54,35	56,82	17	36,96	38,64	2	4,35	4,55	
ec1-RNAi-9	6	47	44	93,62	3	6,38	25	53,19	56,82	8	17,02	18,18	11	23,40	25,00	
ec1-RNAi-9	7	37	36	97,30	1	2,70	19	51,35	52,78	10	27,03	27,78	7	18,92	19,44	
ec1-RNAi-9	8	57	51	89,47	6	10,53	27	47,37	52,94	17	29,82	33,33	7	12,28	13,73	
ec1-RNAi-9	9	44	41	93,18	3	6,82	25	56,82	60,98	7	15,91	17,07	9	20,45	21,95	
ec1-RNAi-9	10	49	41	83,67	8	16,33	27	55,10	65,85	8	16,33	19,51	6	12,24	14,63	
ec1-RNAi-9	11	50	46	92,00	4	8,00	21	42,00	45,65	13	26,00	28,26	12	24,00	26,09	
MEAN		519	458			11,41		53,70			30,95			15,35		
Standard error						2,17		1,89			3,03			2,33		
ec1-RNAi-16	1	41	38	92,68	3	7,32	18	43,90	47,37	19	46,34	50,00	1	2,44	2,63	46,67
ec1-RNAi-16	2	37	24	64,86	13	35,14	15	40,54	62,50	7	18,92	29,17	2	5,41	8,33	
ec1-RNAi-16	3	46	33	71,74	13	28,26	17	36,96	51,52	13	28,26	39,39	3	6,52	9,09	
ec1-RNAi-16	4	51	41	80,39	10	19,61	22	43,14	53,66	14	27,45	34,15	5	9,80	12,20	
ec1-RNAi-16	5	46	31	67,39	15	32,61	16	34,78	51,61	13	28,26	41,94	2	4,35	6,45	
MEAN		221	167			24,59		53,33			38,93			7,74		
Standard error						5,05		2,51			3,53			1,57		
ec1-RNAi-18	1	41	35	85,37	6	14,63	16	39,02	45,71	18	43,90	51,43	1	2,44	2,86	45,06
ec1-RNAi-18	2	39	32	82,05	7	17,95	19	48,72	59,38	8	20,51	25,00	5	12,82	15,63	
ec1-RNAi-18	3	43	38	88,37	5	11,63	22	51,16	57,89	15	34,88	39,47	1	2,33	2,63	
ec1-RNAi-18	4	64	54	84,38	10	15,63	33	51,56	61,11	15	23,44	27,78	6	9,38	11,11	
ec1-RNAi-18	5	55	48	87,27	7	12,73	28	50,91	58,33	15	27,27	31,25	5	9,09	10,42	
ec1-RNAi-18	6	53	50	94,34	3	5,66	24	45,28	48,00	16	30,19	32,00	10	18,87	20,00	
ec1-RNAi-18	7	48	43	89,58	5	10,42	20	41,67	46,51	17	35,42	39,53	6	12,50	13,95	
ec1-RNAi-18	8	47	45	95,74	2	4,26	27	57,45	60,00	12	25,53	26,67	6	12,77	13,33	
ec1-RNAi-18	9	46	40	86,96	6	13,04	23	50,00	57,50	15	32,61	37,50	2	4,35	5,00	
MEAN		436	385			11,77		54,94			34,51			10,55		
Standard error						1,49		2,09			2,79			2,00		
unfused sperm cells in ec1-RNAi (mean)														45,06		