Supplemental Data for:

Rorc restrains the potency of ST2^{+} regulatory T cells in ameliorating intestinal Graft-versus-host disease

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Sup. Table 1. Transcriptome analysis of sorted Treg cells from WT and ST2$^{-/-}$ mouse

Sample ID			**WT Treg**	**WT Treg**	**ST2 KO Treg**	**ST2 KO Treg**
FOV Count			555	555	555	555
FOV Counted			554	552	555	553
Binding Density			0.19	0.22	0.17	0.19
Messages						
Positive	POS_A	ERCC_00117.1	105027	102348	107597	103634
Positive	POS_B	ERCC_00112.1	19916	20014	20956	20067
Positive	POS_C	ERCC_00002.1	5498	5458	5853	5644
Positive	POS_D	ERCC_00092.1	1621	1634	1741	1715
Positive	POS_E	ERCC_00035.1	359	379	360	398
Positive	POS_F	ERCC_00034.1	103	101	94	104
Negative	NEG_A	ERCC_00096.1	15	16	10	16
Negative	NEG_B	ERCC_00041.1	13	6	11	6
Negative	NEG_C	ERCC_00019.1	4	2	7	6
Negative	NEG_D	ERCC_00076.1	7	3	3	1
Negative	NEG_E	ERCC_00098.1	8	11	18	9
Negative	NEG_F	ERCC_00126.1	8	9	10	6
Negative	NEG_G	ERCC_00144.1	6	1	5	3
Negative	NEG_H	ERCC_00154.1	1	1	6	5
Endogenous	Abcb10	NM_019552.2	21	14	27	16
Endogenous	Abcb1a	NM_011076.1	140	149	171	160
Endogenous	Abcf1	NM_013854.1	143	136	144	136
Endogenous	Abl1	NM_009594.3	10	15	18	11
Endogenous	Adal	NM_029475.1	1	5	6	5
Endogenous	Ahr	NM_013464.4	122	103	38	53
Endogenous	Aicda	NM_009645.2	2	1	7	11
Endogenous	Aire	NM_009646.1	6	2	4	5
Endogenous	App	NM_007471.2	545	532	565	573
Endogenous	Arhgdib	NM_007486.4	462	475	99	106
Endogenous	Atg16l1	NM_029846.3	51	54	46	58
Endogenous	Atm	NM_007499.1	13	16	16	12
Endogenous	B2m	NM_009735.3	5125	4962	1689	1758
Endogenous	Batf	NM_016767.2	54	55	25	15
Endogenous	Batf3	NM_030060.2	12	11	8	5

Endogenous	Bax	NM_007527.3	28	24	16	23
Endogenous	Bcap31	NM_012060.4	217	216	383	351
Endogenous	Bcl2	NM_009741.3	30	34	38	33
Endogenous	Bcl3	NM_033601.3	77	72	55	64
Endogenous	Bcl6	NM_009744.3	15	16	29	23
Endogenous	Bid	NM_007544.3	21	22	20	30
Endogenous	Blnk	NM_008528.4	61	68	154	149
Endogenous	Bst1	NM_009763.3	22	30	8	7
Endogenous	Bst2	NM_198095.2	111	104	92	97
Endogenous	Btk	NM_013482.2	14	12	14	13
Endogenous	Btla	NM_177584.3	18	15	4	3
Endogenous	Btnl1	NM_001111094.1	75	68	75	76
Endogenous	Btnl2	NM_079835.2	44	49	37	31
Endogenous	C1qa	NM_007572.2	136	137	69	83
Endogenous	C1qb	NM_009777.2	178	193	55	59
Endogenous	C1qbp	NM_007573.2	220	186	352	332
Endogenous	C1ra	NM_023143.3	12	10	4	7
Endogenous	C1s	NM_144938.2	4	3	6	9
Endogenous	C2	NM_013484.2	10	11	4	6
Endogenous	C3	NM_009778.2	89	83	16	14
Endogenous	C4a	NM_011413.2	12	11	7	3
Endogenous	C4bp	NM_007576.3	1	2	6	5
Endogenous	C6	NM_016704.2	13	11	8	12
Endogenous	C7	XM_356827.6	2	1	2	3
Endogenous	C8a	NM_146148.1	1	1	2	2
Endogenous	C8b	NM_133882.2	3	1	4	1
Endogenous	C8g	NM_027062.1	1	1	1	2
Endogenous	C9	NM_013485.1	2	3	3	2
Endogenous	Camp	NM_009921.2	20	7	1	1
Endogenous	Card9	NM_001037747.1	21	19	10	12
Endogenous	Casp1	NM_009807.2	215	188	241	231
Endogenous	Casp2	NM_007610.1	32	35	57	50
Endogenous	Casp3	NM_009810.2	273	316	107	103
Endogenous	Casp8	NM_009812.2	249	251	191	200
Endogenous	Ccbp2	NM_021609.3	4	1	3	2
Endogenous	Ccl11	NM_011330.3	4	4	8	5
Endogenous	Ccl12	NM_011331.2	3	3	4	4
Endogenous	Ccl19	NM_011888.2	4	2	1	3
Endogenous	Ccl2	NM_011333.3	60	50	33	25
Endogenous	Ccl20	NM_016960.1	14	14	26	30
Endogenous	Ccl22	NM_009137.2	89	130	33	26

Endogenous	Ccl24	NM_019577.4	48	37	5	6
Endogenous	Ccl25	NM_009138.3	300	313	819	830
Endogenous	Ccl26	NM_001013412.2	1	1	3	1
Endogenous	Ccl3	NM_011337.1	574	615	125	109
Endogenous	Ccl4	NM_013652.1	306	325	133	137
Endogenous	Ccl5	NM_013653.1	409	388	103	99
Endogenous	Ccl6	NM_009139.2	272	222	90	91
Endogenous	Ccl7	NM_013654.2	25	28	23	23
Endogenous	Ccl8	NM_021443.2	16	19	6	5
Endogenous	Ccl9	NM_011338.2	70	85	97	92
Endogenous	Ccr10	NM_007721.4	6	6	10	4
Endogenous	Ccr2	NM_009915.2	81	97	10	11
Endogenous	Ccr3	NM_009914.4	32	24	6	6
Endogenous	Ccr4	NM_009916.2	7	7	3	3
Endogenous	Ccr5	NM_009917.5	77	83	17	23
Endogenous	Ccr6	NM_001190333.1	3	2	9	10
Endogenous	Ccr7	NM_007719.2	100	146	94	111
Endogenous	Ccr8	NM_007720.2	58	54	3	2
Endogenous	Ccr9	NM_009913.6	160	158	116	132
Endogenous	Ccrl1	NM_145700.2	3	6	5	4
Endogenous	Ccrl2	NM_017466.4	580	589	108	118
Endogenous	Cd109	NM_153098.3	1	2	4	4
Endogenous	Cd14	NM_009841.3	144	154	53	43
Endogenous	Cd160	NM_001163496.1	1	3	4	3
Endogenous	Cd163	NM_053094.2	5	3	7	5
Endogenous	Cd164	NM_016898.2	259	247	318	310
Endogenous	Cd19	NM_009844.2	3	1	50	40
Endogenous	Cd1d1	NM_007639.3	30	27	12	14
Endogenous	Cd2	NM_013486.2	450	448	18	19
Endogenous	Cd209g	NM_027343.3	1	2	1	1
Endogenous	Cd22	NM_001043317.2	14	8	30	35
Endogenous	Cd226	NM_001039149.1	49	37	7	5
Endogenous	Cd244	NM_018729.2	25	17	4	3
Endogenous	Cd247	NM_001113391.2	126	116	18	11
Endogenous	Cd24a	NM_009846.2	124	124	252	241
Endogenous	Cd27	NM_001042564.1	87	65	8	1
Endogenous	Cd274	NM_021893.2	316	287	54	59
Endogenous	Cd28	NM_007642.4	66	50	15	20
Endogenous	Cd34	NM_001111059.1	7	8	20	20
Endogenous	Cd36	NM_007643.3	11	12	13	13
Endogenous	Cd3d	NM_013487.2	265	243	24	14

Endogenous	Cd3e	NM_007648.4	281	273	33	33
Endogenous	Cd3eap	NM_145822.2	8	8	6	14
Endogenous	Cd4	NM_013488.2	219	233	34	33
Endogenous	Cd40	NM_011611.2	38	39	16	16
Endogenous	Cd40lg	NM_011616.2	16	12	4	5
Endogenous	Cd44	NM_009851.2	173	158	66	83
Endogenous	Cd46	NM_010778.3	1	3	4	2
Endogenous	Cd48	NM_007649.4	86	84	23	23
Endogenous	Cd5	NM_007650.3	160	198	10	10
Endogenous	Cd53	NM_007651.3	41	36	15	14
Endogenous	Cd55	NM_010016.2	32	32	44	42
Endogenous	Cd59b	NM_181858.1	3	2	4	1
Endogenous	Cd6	NM_001037801.2	156	134	6	9
Endogenous	Cd69	NM_001033122.3	99	99	52	49
Endogenous	Cd7	NM_009854.1	47	44	58	64
Endogenous	Cd74	NM_001042605.1	13339	14266	6739	7074
Endogenous	Cd79a	NM_007655.3	7	6	6	9
Endogenous	Cd79b	NM_008339.2	7	4	43	47
Endogenous	Cd80	NM_009855.2	124	107	37	26
Endogenous	Cd81	NM_133655.2	462	482	644	634
Endogenous	Cd82	NM_001271430.1	270	281	200	201
Endogenous	Cd83	NM_009856.2	176	181	168	190
Endogenous	Cd86	NM_019388.3	77	93	44	48
Endogenous	Cd8a	NM_001081110.2	48	49	18	25
Endogenous	Cd8b1	NM_009858.2	11	5	3	7
Endogenous	Cd9	NM_007657.3	422	409	297	337
Endogenous	Cd96	NM_032465.2	7	5	1	2
Endogenous	Cd97	NM_011925.1	285	255	170	196
Endogenous	Cd99	NM_025584.2	306	293	194	226
Endogenous	Cdh5	NM_009868.3	3	2	4	3
Endogenous	Cdkn1a	NM_007669.4	328	323	349	323
Endogenous	Ceacam1	NM_001039185.1	254	267	216	210
Endogenous	Cebpb	NM_009883.3	419	428	292	306
Endogenous	Cfb	NM_008198.2	60	81	50	57
Endogenous	Cfd	NM_013459.1	1	2	1	2
Endogenous	Cfh	NM_009888.3	3	4	6	2
Endogenous	Cfi	NM_007686.2	3	4	4	4
Endogenous	Cfp	NM_008823.3	47	51	30	29
Endogenous	Chuk	NM_001162410.1	81	85	93	91
Endogenous	Ciita	NM_007575.2	54	66	34	35
Endogenous	Cish	NM_009895.3	48	33	5	10

Endogenous	Clec4a4	NM_001005860.2	9	2	6	2
Endogenous	Clec4e	NM_019948.2	105	117	8	13
Endogenous	Clec5a	NM_001038604.1	22	25	2	5
Endogenous	Clu	NM_013492.2	15	37	37	23
Endogenous	Cmklr1	NM_008153.3	36	39	16	15
Endogenous	Cr2	NM_007758.2	4	2	8	7
Endogenous	Cradd	NM_009950.2	15	7	12	17
Endogenous	Crlf2	NM_001164735.1	139	141	48	42
Endogenous	Csf1	NM_001113530.1	58	49	11	8
Endogenous	Csf1r	NM_001037859.1	177	161	47	53
Endogenous	Csf2	NM_009969.4	27	19	6	5
Endogenous	Csf2rb	NM_007780.4	149	168	85	76
Endogenous	Csf3r	NM_001252651.1	34	27	6	7
Endogenous	Ctla4	NM_009843.3	807	759	30	30
Endogenous	Ctnnb1	NM_007614.2	218	234	268	280
Endogenous	Ctsc	NM_009982.2	138	138	46	46
Endogenous	Ctsg	NM_007800.1	4	4	3	4
Endogenous	Ctss	NM_021281.2	597	570	195	197
Endogenous	Cul9	NM_001081335.2	5	3	5	5
Endogenous	Cx3cl1	NM_009142.3	14	15	20	20
Endogenous	Cx3cr1	NM_009987.3	11	10	20	13
Endogenous	Cxcl1	NM_008176.1	64	65	51	56
Endogenous	Cxcl10	NM_021274.1	171	168	30	44
Endogenous	Cxcl11	NM_019494.1	131	135	8	5
Endogenous	Cxcl12	NM_021704.3	3	3	8	11
Endogenous	Cxcl13	NM_018866.2	1	1	1	3
Endogenous	Cxcl15	NM_011339.2	4	3	1	2
Endogenous	Cxcl3	NM_203320.2	108	108	13	9
Endogenous	Cxcl9	NM_008599.2	265	261	16	12
Endogenous	Cxcr1	NM_178241.4	5	4	1	1
Endogenous	Cxcr2	NM_009909.3	9	4	1	1
Endogenous	Cxcr3	NM_009910.2	78	70	12	12
Endogenous	Cxcr4	NM_009911.3	364	315	119	132
Endogenous	Cxcr5	NM_007551.2	2	3	10	16
Endogenous	Cxcr6	NM_030712.4	103	79	11	8
Endogenous	Cybb	NM_007807.2	323	318	147	149
Endogenous	Ddx58	NM_172689.3	62	66	38	44
Endogenous	Defb1	NM_007843.3	5	2	6	5
Endogenous	Defb14	NM_183026.2	3	3	1	3
Endogenous	Dpp4	NM_001159543.1	46	52	78	82
Endogenous	Ebi3	NM_015766.2	29	32	7	6

Endogenous	Emr1	NM_010130.1	112	102	39	33
Endogenous	Entpd1	NM_009848.3	102	104	34	18
Endogenous	Eomes	NM_010136.2	10	2	3	4
Endogenous	Ets1	NM_001038642.1	527	502	99	104
Endogenous	Fadd	NM_010175.5	11	8	15	15
Endogenous	Fas	NM_007987.2	19	25	8	13
Endogenous	Fasl	NM_010177.3	21	11	3	4
Endogenous	Fcamr	NM_001170632.1	11	4	11	7
Endogenous	Fcer1a	NM_010184.1	10	6	21	29
Endogenous	Fcer1g	NM_010185.4	65	53	12	13
Endogenous	Fcgr1	NM_010186.5	26	26	8	10
Endogenous	Fcgr2b	NM_001077189.1	108	127	68	58
Endogenous	Fcgr3	NM_010188.5	37	44	6	8
Endogenous	Fcgr4	NM_144559.1	58	63	11	9
Endogenous	Fcgrt	NM_010189.3	35	29	46	42
Endogenous	Fkbp5	NM_010220.3	87	64	37	41
Endogenous	Fn1	NM_010233.1	15	16	12	12
Endogenous	Folr4	NM_022888.2	99	98	4	2
Endogenous	Foxp3	NM_054039.1	276	285	7	2
Endogenous	Frmpd4	NM_001033330.2	1	2	1	3
Endogenous	Fyn	NM_008054.2	125	120	47	54
Endogenous	Gata3	NM_008091.3	82	86	6	5
Endogenous	Gfi1	NM_010278.2	11	13	8	9
Endogenous	Gm10499	XM_003086920.1	13	10	18	22
Endogenous	Gp1bb	NM_010327.2	41	41	49	44
Endogenous	Gpi1	NM_008155.3	2	4	8	5
Endogenous	Gpr183	NM_183031.2	44	41	52	57
Endogenous	Gpr44	NM_009962.2	7	4	2	4
Endogenous	Gzma	NM_010370.2	223	247	84	79
Endogenous	Gzmb	NM_013542.2	827	770	37	37
Endogenous	H2-Aa	NM_010378.2	2377	2554	1313	1532
Endogenous	H2-Ab1	NM_207105.2	2762	3067	987	1050
Endogenous	H2-DMa	NM_010386.3	169	177	87	103
Endogenous	H2-DMb2	NM_010388.4	35	36	70	65
Endogenous	H2-Ea-ps	NM_010381.2	561	611	1400	1457
Endogenous	H2-Eb1	NM_010382.2	1956	2135	1110	1160
Endogenous	H2-K1	NM_001001892.2	3844	3873	515	564
Endogenous	H2-Ob	NM_010389.3	2	6	23	18
Endogenous	H2-Q10	NM_010391.4	44	55	15	16
Endogenous	H60a	NM_010400.2	1	2	6	5
Endogenous	Hamp	NM_032541.1	1	1	1	1

Endogenous	Hc	NM_010406.1	2	1	1	1
Endogenous	Hcst	NM_011827.3	95	74	20	8
Endogenous	Hfe	NM_010424.4	13	18	16	11
Endogenous	Hif1a	NM_010431.1	126	113	32	34
Endogenous	Hlx	NM_008250.2	15	16	10	5
Endogenous	Icam1	NM_010493.2	88	85	20	31
Endogenous	Icam2	NM_010494.1	15	13	10	12
Endogenous	Icam4	NM_023892.2	10	5	4	2
Endogenous	Icam5	NM_008319.2	1	2	4	2
Endogenous	Icos	NM_017480.1	271	254	13	7
Endogenous	Icosl	NM_015790.3	28	22	25	25
Endogenous	Ifi204	NM_008329.2	25	27	3	4
Endogenous	Ifi35	NM_027320.4	86	98	70	74
Endogenous	Ifih1	NM_027835.2	112	111	66	60
Endogenous	Ifit2	NM_008332.2	114	104	11	8
Endogenous	Ifitm1	NM_001112715.1	141	133	94	99
Endogenous	Ifna1	NM_010502.2	5	3	1	4
Endogenous	Ifna2	NM_010503.2	1	2	3	1
Endogenous	Ifnar1	NM_010508.1	300	283	197	204
Endogenous	Ifnar2	NM_001110498.1	46	52	24	43
Endogenous	Ifnb1	NM_010510.1	4	3	4	2
Endogenous	Ifng	NM_008337.1	83	91	8	4
Endogenous	Ifngr1	NM_010511.2	462	421	156	182
Endogenous	Ifngr2	NM_008338.3	131	136	187	198
Endogenous	Igf2r	NM_010515.1	25	31	33	38
Endogenous	Ikbkap	NM_026079.3	86	96	92	86
Endogenous	Ikbkb	NM_010546.2	33	40	38	36
Endogenous	Ikbke	NM_019777.3	94	90	86	82
Endogenous	Ikbkg	NM_178590.2	48	41	50	46
Endogenous	Ikzf1	NM_001025597.1	15	22	11	16
Endogenous	Ikzf2	NM_011770.4	216	198	13	15
Endogenous	Ikzf3	NM_011771.1	85	76	25	31
Endogenous	Ikzf4	NM_011772.2	27	27	7	2
Endogenous	Il10	NM_010548.1	74	88	5	7
Endogenous	Il10ra	NM_008348.2	117	130	37	33
Endogenous	Il10rb	NM_008349.5	85	94	70	97
Endogenous	Il11ra1	NM_010549.3	7	4	6	4
Endogenous	Il12a	NM_008351.1	4	4	2	5
Endogenous	Il12b	NM_008352.1	26	13	8	8
Endogenous	Il12rb1	NM_008353.2	52	45	4	4
Endogenous	Il12rb2	NM_008354.3	19	14	4	4

Endogenous	Il13	NM_008355.2	15	12	13	13
Endogenous	Il13ra1	NM_133990.4	94	101	90	93
Endogenous	Il15	NM_008357.2	8	3	6	5
Endogenous	Il15ra	NM_008358.2	7	18	10	12
Endogenous	Il16	NM_010551.3	86	65	21	22
Endogenous	Il17a	NM_010552.3	3	2	2	5
Endogenous	Il17b	NM_019508.1	1	2	1	1
Endogenous	Il17f	NM_145856.2	1	3	6	2
Endogenous	Il17ra	NM_008359.1	70	61	37	39
Endogenous	Il17rb	NM_019583.3	13	10	32	24
Endogenous	Il17re	NM_001034029.1	4	2	6	4
Endogenous	Il18	NM_008360.1	15	15	54	57
Endogenous	Il18r1	NM_001161842.1	114	86	15	8
Endogenous	Il18rap	NM_010553.2	60	53	2	2
Endogenous	Il19	NM_001009940.1	4	2	1	1
Endogenous	Il1a	NM_010554.4	209	232	33	33
Endogenous	Il1b	NM_008361.3	413	471	188	208
Endogenous	Il1r1	NM_001123382.1	6	4	13	12
Endogenous	Il1r2	NM_010555.4	176	200	39	49
Endogenous	Il1rap	NM_134103.2	13	12	11	8
Endogenous	Il1rl1	NM_001025602.2	203	205	10	5
Endogenous	Il1rl2	NM_133193.3	8	5	6	6
Endogenous	Il1rn	NM_031167.5	263	246	39	40
Endogenous	Il2	NM_008366.2	10	3	1	2
Endogenous	Il20	NM_021380.1	4	1	1	1
Endogenous	Il21	NM_021782.2	6	8	4	1
Endogenous	Il21r	NM_021887.1	22	27	2	3
Endogenous	Il22	NM_016971.1	1	1	7	3
Endogenous	Il22ra2	NM_178258.5	2	3	70	82
Endogenous	Il23a	NM_031252.1	21	15	8	2
Endogenous	Il23r	NM_144548.1	3	3	6	3
Endogenous	Il25	NM_080729.2	3	3	4	2
Endogenous	Il27	NM_145636.1	15	13	2	6
Endogenous	Il27ra	NM_016671.3	56	48	1	3
Endogenous	Il28a	NM_001024673.2	1	4	5	3
Endogenous	Il2ra	NM_008367.2	301	280	8	5
Endogenous	Il2rb	NM_008368.3	586	537	38	32
Endogenous	Il2rg	NM_013563.3	206	209	37	30
Endogenous	Il3	NM_010556.4	3	1	3	4
Endogenous	Il33	NM_133775.1	5	7	8	5
Endogenous	Il4	NM_021283.1	10	10	1	3

Endogenous	Il4ra	NM_001008700.3	318	369	121	106
Endogenous	Il5	NM_010558.1	5	2	3	2
Endogenous	Il6	NM_031168.1	21	33	17	11
Endogenous	Il6ra	NM_010559.2	9	13	10	8
Endogenous	Il6st	NM_010560.2	41	36	31	28
Endogenous	Il7	NM_008371.2	3	3	4	3
Endogenous	Il7r	NM_008372.3	117	125	31	26
Endogenous	Il9	NM_008373.1	4	2	3	3
Endogenous	Ilf3	NM_010561.2	24	33	36	36
Endogenous	Irak1	NM_008363.2	50	57	55	76
Endogenous	Irak2	NM_001113553.1	231	267	142	152
Endogenous	Irak3	NM_028679.3	43	46	13	12
Endogenous	Irak4	NM_029926.5	108	87	128	133
Endogenous	Irf1	NM_008390.1	585	637	264	302
Endogenous	Irf3	NM_016849.3	8	7	13	16
Endogenous	Irf4	NM_013674.1	63	81	58	72
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Endogenous	Itga2b	NM_010575.2	3	2	6	5
Endogenous	Itga4	NM_010576.3	75	89	20	21
Endogenous	Itga5	NM_010577.3	16	10	7	15
Endogenous	Itga6	NM_008397.3	150	143	223	217
Endogenous	Itgal	NM_008400.2	144	140	30	32
Endogenous	Itgam	NM_001082960.1	105	112	34	35
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Endogenous	Itgb1	NM_010578.1	148	149	166	154
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Endogenous	Itln1	NM_010584.3	41	58	196	201
Endogenous	Jak1	NM_146145.2	235	242	144	134
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Endogenous	Kir3dl2	NM_177748.2	3	3	4	2
Endogenous	Kit	NM_001122733.1	7	6	10	9
Endogenous	Klra1	NM_016659.3	2	3	3	1
Endogenous	Klra21	NM_053151.1	2	1	2	1
Endogenous	Klra4	NM_010649.3	1	1	1	1
Endogenous	Klra5	NM_008463.2	4	3	4	2
Endogenous	Klra6	NM_008464.2	3	1	1	1

Endogenous	Klra7	NM_001110323.1	1	2	1	3
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Endogenous	Klrb1	NM_001099918.1	1	1	1	1
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Endogenous	Klrc2	NM_001098669.1	4	2	5	5
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Endogenous	Klrk1	NM_001083322.1	15	22	12	9
Endogenous	Lair1	NM_001113474.1	13	12	13	15
Endogenous	Lck	NM_010693.2	181	183	22	24
Endogenous	Lcp2	NM_010696.3	20	20	7	5
Endogenous	Lef1	NM_010703.3	26	16	6	3
Endogenous	Lif	NM_008501.2	24	20	21	19
Endogenous	Lilra5	NM_001081239.2	9	11	8	7
Endogenous	Lilra6	NM_011090.2	7	8	4	2
Endogenous	Lilrb3	NM_011095.2	35	28	6	10
Endogenous	Lilrb4	NM_013532.2	590	522	74	75
Endogenous	Litaf	NM_019980.1	207	208	61	86
Endogenous	Lta	NM_010735.1	8	7	4	5
Endogenous	Ltb	NM_008518.2	150	138	46	34
Endogenous	Ltb4r1	NM_008519.2	41	36	9	10
Endogenous	Ltb4r2	NM_020490.2	8	7	6	9
Endogenous	Ltbr	NM_010736.3	74	78	87	88
Endogenous	Ltf	NM_008522.3	2	2	1	1
Endogenous	Ly86	NM_010745.2	37	45	43	40
Endogenous	Ly96	NM_016923.1	5	5	6	6
Endogenous	Maf	NM_001025577.2	52	51	25	31
Endogenous	Map4k1	NM_008279.2	33	27	16	23
Endogenous	Map4k2	NM_009006.2	60	44	34	33
Endogenous	Map4k4	NM_008696.2	40	57	44	49
Endogenous	Mapk1	NM_011949.3	138	127	139	156
Endogenous	Mapk11	NM_011161.5	4	3	7	5
Endogenous	Mapk14	NM_011951.2	49	46	61	54
Endogenous	Mapkapk2	NM_008551.1	289	280	110	123
Endogenous	Marco	NM_010766.2	2	1	2	2
Endogenous	Masp1	NM_008555.2	7	2	4	3
Endogenous	Masp2	NM_010767.3	1	2	8	9
Endogenous	Mbl2	NM_010776.1	1	3	1	1
Endogenous	Mbp	NM_010777.3	13	11	13	15
Endogenous	Mif	NM_010798.2	678	663	566	686
Endogenous	Mme	NM_008604.3	15	18	32	32

Endogenous	Mr1	NM_008209.4	7	3	3	2
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Endogenous	Muc1	NM_013605.1	6	5	13	7
Endogenous	Mx1	NM_010846.1	26	24	17	13
Endogenous	Myd88	NM_010851.2	51	56	58	63
Endogenous	Ncam1	NM_001113204.1	1	1	1	3
Endogenous	Ncf4	NM_008677.2	89	101	31	29
Endogenous	Nfatc1	NM_016791.4	31	44	15	23
Endogenous	Nfatc2	NM_001037177.1	51	57	21	18
Endogenous	Nfatc3	NM_010901.2	72	78	60	71
Endogenous	Nfil3	NM_017373.3	289	293	198	218
Endogenous	Nfkb1	NM_008689.2	92	103	54	47
Endogenous	Nfkb2	NM_019408.2	495	485	388	396
Endogenous	Nfkbia	NM_010907.2	2277	2305	1072	1101
Endogenous	Nfkbiz	NM_030612.1	607	620	276	313
Endogenous	Nod2	NM_145857.2	13	11	6	6
Endogenous	Nos2	NM_010927.3	110	72	90	64
Endogenous	Notch1	NM_008714.2	143	129	119	145
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Endogenous	Nox1	NM_172203.1	18	18	23	32
Endogenous	Nox3	NM_198958.2	1	2	2	2
Endogenous	Nox4	NM_015760.4	2	1	1	1
Endogenous	Npc1	NM_008720.2	59	63	63	69
Endogenous	Nt5e	NM_011851.3	29	37	16	11
Endogenous	Pax5	NM_008782.2	3	2	20	23
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Endogenous	Pecam1	NM_008816.2	58	66	36	24
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Endogenous	Plaur	NM_011113.3	323	309	152	148
Endogenous	Pml	NM_008884.2	38	43	53	45
Endogenous	Pou2f2	NM_001163554.1	24	24	15	16

Endogenous	Pparg	NM_011146.1	21	32	26	25
Endogenous	Ppbp	NM_023785.2	2	2	4	2
Endogenous	Prdm1	NM_007548.3	52	59	22	19
Endogenous	Prf1	NM_011073.2	19	15	4	3
Endogenous	Prim1	NM_008921.2	24	24	40	26
Endogenous	Prkcd	NM_011103.2	265	282	304	286
Endogenous	Psmb10	NM_013640.3	308	314	195	193
Endogenous	Psmb11	NM_175204.4	3	1	2	4
Endogenous	Psmb5	NM_011186.1	90	83	125	138
Endogenous	Psmb7	NM_011187.1	80	65	94	75
Endogenous	Psmb9	NM_013585.2	537	555	197	216
Endogenous	Psmc2	NM_011188.3	190	182	222	215
Endogenous	Psmd7	NM_010817.2	77	78	121	110
Endogenous	Ptafr	NM_001081211.1	156	148	41	43
Endogenous	Ptger4	NM_008965.1	75	74	61	61
Endogenous	Ptgs2	NM_011198.3	249	263	39	52
Endogenous	Ptk2	NM_007982.2	55	50	68	60
Endogenous	Ptpn2	NM_001127177.1	53	52	47	46
Endogenous	Ptpn22	NM_008979.1	101	81	27	19
Endogenous	Ptpn6	NM_013545.2	74	81	70	80
Endogenous	Ptprc	NM_011210.3	372	362	109	133
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Endogenous	Rag1	NM_009019.2	1	1	1	2
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Endogenous	Rela	NM_009045.4	151	149	104	112
Endogenous	Relb	NM_009046.2	153	157	109	117
Endogenous	Rorc	NM_011281.2	41	35	168	199
Endogenous	Runx1	NM_001111021.1	34	40	20	9
Endogenous	Runx3	NM_019732.2	35	29	20	18
Endogenous	S100a8	NM_013650.2	561	342	9	12
Endogenous	S100a9	NM_009114.2	347	240	11	9
Endogenous	Sele	NM_011345.2	4	1	3	2
Endogenous	Sell	NM_001164059.1	38	48	38	36
Endogenous	Selplg	NM_009151.3	1	2	1	3
Endogenous	Serping1	NM_009776.3	10	9	13	7
Endogenous	Sh2d1a	NM_011364.3	24	31	2	4
Endogenous	Sigirr	NM_023059.3	36	38	39	47
Endogenous	Ski	NM_011385.2	187	154	176	158
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Endogenous	Slamf7	NM_144539.5	60	62	39	43
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Endogenous	Smad5	NM_008541.2	18	21	53	37
Endogenous	Socs1	NM_009896.2	74	65	27	35
Endogenous	Socs3	NM_007707.2	94	122	73	72
Endogenous	Spn	NM_001037810.1	133	126	16	21
Endogenous	Src	NM_001025395.2	166	185	162	166
Endogenous	Stat1	NM_009283.3	529	557	106	103
Endogenous	Stat2	NM_019963.1	24	28	6	5
Endogenous	Stat3	NM_213659.2	469	474	211	203
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Endogenous	Stat5a	NM_011488.2	97	87	34	38
Endogenous	Stat5b	NM_011489.3	101	82	43	42
Endogenous	Stat6	NM_009284.2	106	101	96	107
Endogenous	Syk	NM_011518.2	123	116	73	78
Endogenous	Tagap	NM_145968.2	73	77	39	41
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Endogenous	Tap1	NM_001161730.1	625	701	110	127
Endogenous	Tapbp	NM_009318.2	125	147	70	52
Endogenous	Tbk1	NM_019786.4	59	63	40	54
Endogenous	Tbx21	NM_019507.1	46	37	9	5
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Endogenous	Tgfb3	NM_009368.2	6	7	4	5
Endogenous	Tgfbi	NM_009369.4	216	191	85	91
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Endogenous	Tgfbr2	NM_009371.2	167	160	103	105
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Endogenous	Tlr1	NM_030682.1	52	41	29	36
Endogenous	Tlr2	NM_011905.2	16	27	12	9
Endogenous	Tlr3	NM_126166.2	22	18	23	19
Endogenous	Tlr4	NM_021297.2	28	17	10	5
Endogenous	Tlr5	NM_016928.2	4	5	4	4
Endogenous	Tlr8	NM_133212.2	15	14	4	5
Endogenous	Tlr9	NM_031178.2	18	14	7	8
Endogenous	Tmem173	NM_028261.1	43	38	9	7
Endogenous	Tnf	NM_013693.1	173	173	56	58
Endogenous	Tnfaip3	NM_009397.2	774	748	149	165

Endogenous	Tnfaip6	NM_009398.2	2	4	11	7
Endogenous	Tnfrsf11a	NM_009399.3	55	61	79	81
Endogenous	Tnfrsf13b	NM_021349.1	15	11	18	22
Endogenous	Tnfrsf13c	NM_028075.2	6	3	14	14
Endogenous	Tnfrsf14	NM_178931.2	119	152	124	115
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Endogenous	Tnfsf8	NM_009403.2	2	3	2	3
Endogenous	Tollip	NM_023764.3	178	201	142	159
Endogenous	Traf1	NM_009421.3	113	111	25	26
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Endogenous	Traf3	NM_001048206.1	53	48	21	21
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Endogenous	Traf6	NM_009424.2	67	56	58	47
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Endogenous	Tslp	NM_021367.1	3	2	4	3
Endogenous	Tyk2	NM_018793.2	33	34	36	41
Endogenous	Tyrobp	NM_011662.2	481	507	196	210
Endogenous	Ube2l3	NM_009456.2	61	64	87	94
Endogenous	Vcam1	NM_011693.2	20	27	6	7
Endogenous	Vtn	NM_011707.2	1	1	1	2
Endogenous	Xbp1	NM_013842.2	221	210	462	428
Endogenous	Xcl1	NM_008510.1	93	86	16	13
Endogenous	Xcr1	NM_011798.4	2	2	3	2
Endogenous	Zap70	NM_009539.2	66	83	6	5
Endogenous	Zbtb7b	NM_009565.4	84	99	128	123
Endogenous	Zeb1	NM_011546.2	23	33	10	8
Housekeeping	Alas1	NM_020559.2	338	311	319	301

Housekeeping	Eef1g	NM_026007.4	205	245	319	294
Housekeeping	G6pdx	NM_008062.2	107	130	115	107
Housekeeping	Gapdh	NM_001001303.1	6037	6019	4256	4365
Housekeeping	Gusb	NM_010368.1	58	60	38	42
Housekeeping	Hprt	NM_013556.2	180	158	228	197
Housekeeping	Oaz1	NM_008753.4	985	1050	1172	1267
Housekeeping	Polr1b	NM_009086.2	8	6	9	8
Housekeeping	Polr2a	NM_009089.2	178	175	233	257
Housekeeping	Ppia	NM_008907.1	1863	1951	2685	2745
Housekeeping	Rpl19	NM_009078.2	4393	4572	5199	5235
Housekeeping	Sdha	NM_023281.1	150	166	223	220
Housekeeping	Tbp	NM_013684.3	25	27	32	29
Housekeeping	Tubb5	NM_011655.4	298	261	56	74

Sup. Table 2. Transcriptional signature and gene ontology process for upregulated genes in sorted Tregs of ST2$^{-/-}$ mice than WT mice (not shown in Figure 1)

Major mismatch HCT model		
Gene	ST2$^{-/-}$ vs. WT intestinal Tregs ratio	Gene ontology process
Rorc*	**4.79**	**T helper 17 differentiation**
Itln1	4.04	Positive regulation of protein phosphorylation
Pigr	3.48	Immunoglobulin transcytosis in epithelial cells mediated by polymeric immunoglobulin receptor
Ccl25*	2.69	Cell chemotaxis and cellular response to interferon-gamma
H2-Ea-ps*	2.44	Encode immune response antigens that function in the T-cell-dependent immune response
Blnk	2.35	Intracellular signal transduction and transmembrane receptor protein tyrosine kinase signaling pathway
Xbp1	2.06	Phosphatidylinositol 3-kinase regulatory subunit binding
Cd24a	1.99	Protein tyrosine kinase activator activity
Pla2g2a	1.93	Calcium-dependent phospholipase A2 activity
Tfrc	1.92	Transferrin transmembrane transporter activity
H2-DMb2*	1.89	Antigen processing and presentation of exogenous peptide antigen via MHC class II
Bcap31*	1.70	Immune response and calcium-mediated signaling using intracellular calcium source
C1qbp*	1.68	Innate and adaptive immune system process
Dpp4*	1.63	T cell activation and regulation of T cell mediated immunity
Casp2	1.62	Apoptotic signaling pathway
Psmb5	1.52	Proteasome-mediated ubiquitin-dependent protein catabolic process
Itga6	1.50	Integrin-mediated signaling pathway
Minor mismatch HCT model		
Gene	ST2$^{-/-}$ vs. WT intestinal Tregs ratio	Gene ontology process
Ifnar1*	6.17	T cell activation and positive regulation of interferon-gamma production
Rorc*	**3.73**	**T helper 17 differentiation**
Cd4*	2.22	T cell activation and helper T cell enhancement of adaptive immune response

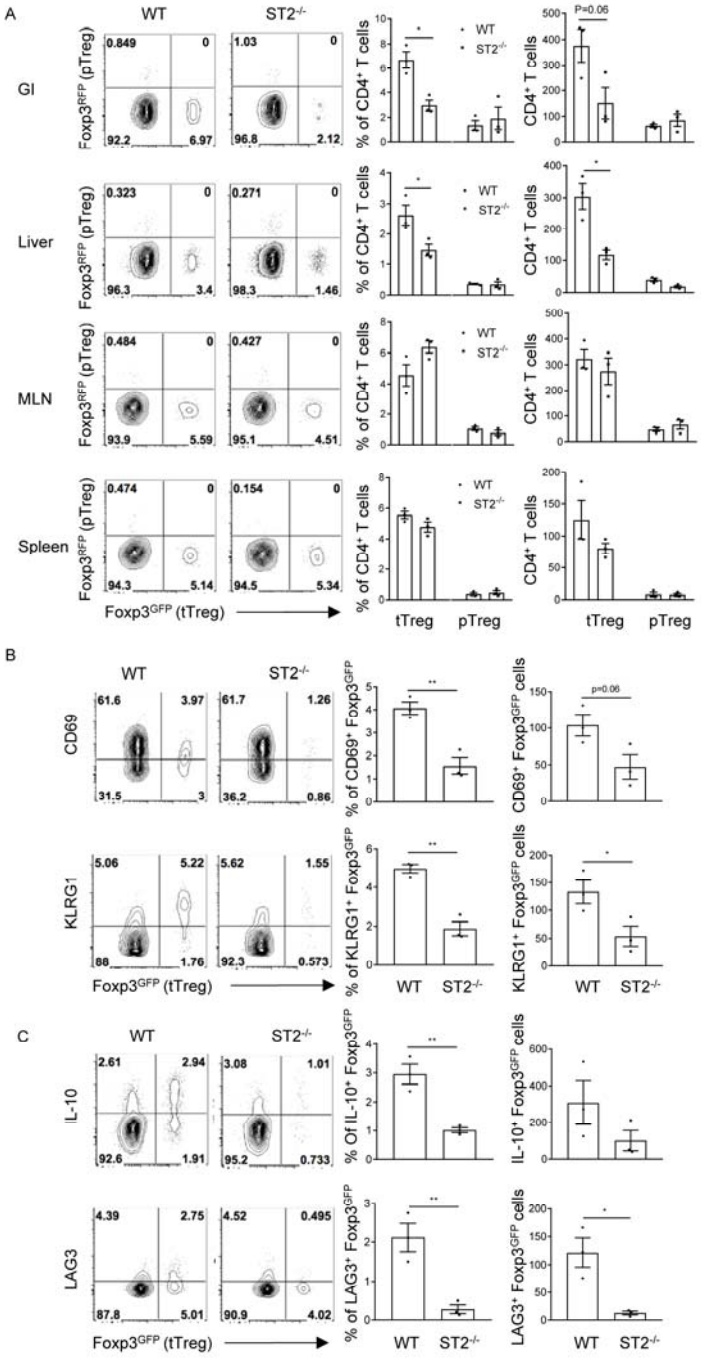
Pecam1	2.18	Leukocyte cell-cell adhesion and Rho protein signal transduction
Stat1*	2.03	Interferon-gamma-mediated signaling pathway
Relb*	1.85	T-helper 1 type immune response
Lck	1.84	Cell surface receptor signaling pathway
Tubb5	1.82	Cellular process and regulation of synapse organization
Ccl9*	1.82	Cellular response to interferon-gamma and chemokine-mediated signaling pathway
Tnfrsf1b*	1.70	Inflammatory response and regulation of T cell cytokine production
Masp1	1.65	Immune system process and complement activation, lectin pathway
Gzma	1.63	Apoptotic process
Nfkbiz*	1.57	Positive regulation of T-helper 17 cell differentiation

** Genes associated with inflammatory phenotype*

Sup. Table 3. Antibodies used for flow cytometry analyses

Antibody	Company	Clone	Fluorochrome
CD4	eBioscience	GK1.5	PE/ PerCP-eFluor® 710
CD8	eBioscience	53-6.7	FITC/ PE-CY7
IFNγ	eBioscience	XMG1.2	PE/ APC/ PerCP-Cy5.5
RORγt	BD biosciences	Q31-378	BV650
T-bet	eBioscience	4B10	PE-CY7
KLRG1	eBioscience	2F1	APC
CD69	eBioscience	H1.2F3	PE-CY7
AREG	R&D	206220	Unconjugated
Foxp3	eBioscience	FJK-16s	PE-CY7
Helios	eBioscience	22F6	PercCP-eF710
ST2	mdbioproduct	Dj8	PE
TIGIT	eBioscience	GIGD7	eF660
IL-17	eBioscience	17B7	APC
IL-4	eBioscience	11B11	PE
IL-10	BD biosciences	JES5-16E3	BV711
LAG3	eBioscience	C9B7W	PE-CY7
Ki67	eBioscience	SolA15	PercCP-eF710

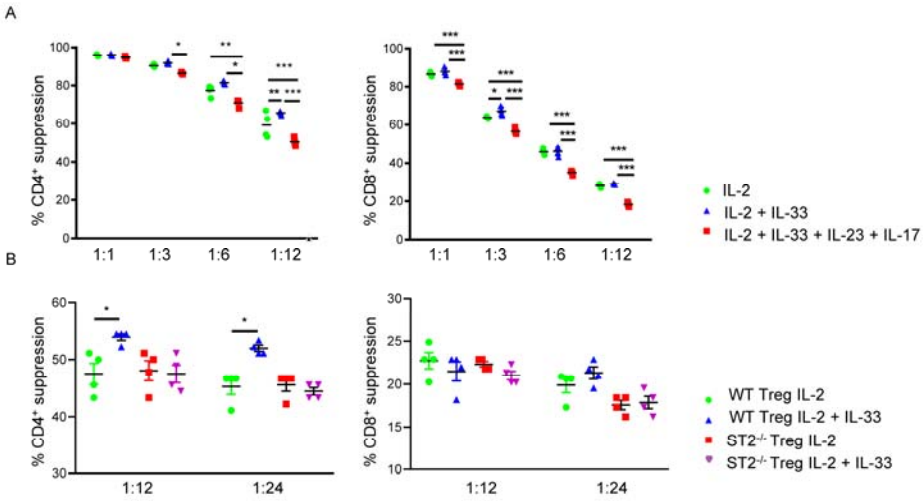
Supplementary Figures



Sup Figure 1. ST2 deficiency reduces donor tTreg expansion, activation, and function

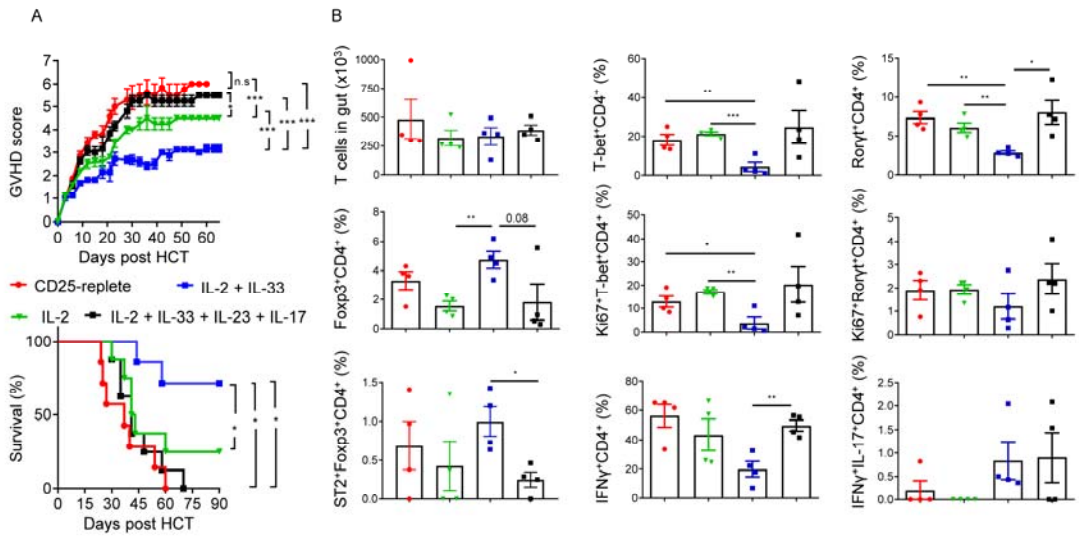
(A) Representative plots of infiltrated CD4$^+$ T cells in the gut and liver of C3H.SW mice receiving allogenic B6 WT Foxp^{RFP} CD25-depleted total T cells with either WT or ST2$^{-/-}$ Foxp3^{GFP} sorted Tregs, ratio of 10:1, n=3, data are shown as mean ± SEM; unpaired t-test, *, P<0.05. No difference between pTregs and tTregs in lymphoid organs (spleen, MLN, not shown). (**B**) Representative plots of CD69 and KLRG1 expression on infiltrated Foxp3^{GFP+}CD4$^+$ T cells in the gut of C3H.SW recipient mice at day 10 post allo-HCT, n=3, data

are shown as mean ± SEM; unpaired t-test, *, P<0.05, **, P<0.01. **(C)** Representative plots of IL-10 and LAG-3 expression on infiltrated $Foxp3^{GFP+}CD4^{+}$ T cells in the gut of C3H.SW recipient mice at day 10 post allo-HCT, n=3, data are shown as mean ± SEM; unpaired t-test, *, P<0.05, **, P<0.01.



Sup Figure 2. Treg$_{IL-33}$ displayed better suppressive capability than Tregs cultured without IL-33 or with IL-23+IL-17 in a ST2 dependent manner

(A) WT CD4^{+}CD25^{+} Tregs were cultured with IL-2, IL-2+IL-33, or IL-2+IL-33+IL-23+IL-17 for 3 days. Percent suppression of *ex vivo* T cell proliferation at various ratios of Tregs:Teffs (1:1, 1:3, 1:6, 1:12) for cells cultured 3 days, (n=4, data are shown as mean ± SEM; ANOVA with Bonferroni correction for multiple comparisons, *, P<0.05, **, P<0.01, ***, P<0.001). **(B)** WT or ST2$^{-/-}$ CD4^{+}CD25^{+} Tregs were cultured with IL-2, or IL-2+IL-33 for 3 days. Percent suppression of *ex vivo* T cell proliferation at various ratios of Tregs:Teffs (1:12, 1:24) for cells cultured 3 days, (n=4, data are shown as mean ± SEM; ANOVA with Bonferroni correction for multiple comparisons, *, P<0.05, **, P<0.01, ***, P<0.001).



Sup Figure 3. Adoptive transfer of IL-33 cultured donor polyclonal Tregs lead to superior protection from aGVHD compared to those cultured without IL-33

(A) Clinical score of aGVHD and survival curve for C3H.SW mice receiving allogenic B6 CD25-replete T cells, or CD25-depleted total T cells with *ex vivo* cultured Treg (IL-2, IL-2+IL-33, IL-2+IL-33+IL-17+IL-23), ratio of 20:1. n=8 per group, data are shown as mean ± SEM; ANOVA with Bonferroni correction for multiple comparisons, ***, P<0.001 for clinical score, a log-rank test was used for survival analysis, *, P<0.05. **(B)** Graph bars represent total infiltrated cells in gut, and frequency of Foxp3, T-bet, RORγt, Ki67, ST2, IFNγ, IL-17 of infiltrated T cells isolated from the gut of C3H.SW recipient mice at day 10 after allo-HCT (n=4, data are shown as mean ± SEM; ANOVA with Bonferroni correction for multiple comparisons, *, P<0.05, **, P<0.01, ***, P<0.001).