

Mice

Other mouse lines used included *Sox2-CreERT* (Cat# 017593), *Sox9-CreERT* (Cat# 035092), *Kras(LSL-G12D)* (Cat# 019104), *Sox9^{fl/fl}* (Cat# 013106), *Rosa26-LSL-Tdtomato* (Cat# 007914), *Rosa26-Frt-STOP-Frt-GFP* (Cat# 32038), *Kras(Frt-STOP-Frt-G12D)* (Cat# 023590) were purchased from Jackson Laboratories. *P53^{R172H}* mice which ubiquitously expressed mutated *p53* were kindly provided by Dr. Kenneth Olive (Columbia University). The obtained transgenic mice were maintained on a C57BL/6 and 129SvEv mixed background. For the entire experiments, adult mice without sex-bias at a minimum age of 6–8 weeks were used. Each individual mouse was injected intraperitoneally with tamoxifen (Tmx) (Cat# T5648, Sigma-Aldrich) that was dissolved in sunflower oil at the designated timepoints. Samples were then collected for analysis.

Cell lines

NCI-N87, KATOIII and AGS gastric cancer cell lines were obtained from the American Type Culture Collection (ATCC, Rockville, MD, USA). The identity of these cell lines were characterized by morphology, karyotyping, and PCR to rule out interspecies and intraspecies contamination. N87 cell were cultured in RPMI-1640 medium (Gibco, Carlsbad, CA, USA), KATOIII cell were cultured in DMEM medium and AGS cell were cultured in DMEM-F12 medium (Gibco, Carlsbad, CA, USA) containing 10% fetal calf serum (Gibco, Carlsbad, CA, USA) and penicillin/streptomycin (Gibco, Carlsbad, CA, USA). All cell lines were cultured in an incubator (Senta, China) at 37°C with 5% CO₂ and 95% air. The media were changed every two days.

Human tissue microarray

A total of 244 paraffin-embedded samples of GC and adjacent normal tissues were collected from 2010 to 2015 at Fujian Medical University Union Hospital and used for immunohistochemistry. The inclusion criteria were as follows: (1) histological identification of GC; (2) absence of combined malignancies and distant metastases; (3) availability of complete follow-up data; and (4) initial or updated tumor stage classification performed according to the 7th edition of The American Joint Committee on Cancer (AJCC) cancer staging manual ¹. Recurrence was defined as the presence of a biopsy-documented tumor or imaging features and was categorized according to the

location. The present study was approved by the ethics committee of Fujian Medical University Union Hospital (No. 2020KY0150), and written consent was obtained from all enrolled patients.

Establishment of 3D organoid cultures

Normal mouse gastric- or human GC cell-derived organoids were processed using a previously published protocol ²⁻⁴. In brief, to develop normal mouse gastric organoid, normal tissues were washed with PBS containing 1x Penicillin/Streptomycin (P/S) twice (Cat#15140122, Thermo Fisher Scientific), followed by removing the muscle layer and mucus using scissors. Normal tissues were then cut into 1-3mm² pieces and incubated in PBS buffer containing 10mM EDTA (Cat#15140122, Thermo Fisher Scientific), 0.5mM DL-dithiothreitol(Cat# D9779, Sigma-Aldrich), 1x P/S and 1mg/ul Primocin (Cat#ant-pm-1, InvivoGen), at 4°C for 45min. Tissue pieces were then carefully transferred to a sterile 10cm dish and gastric glands were released by pressing the tissues using a glass-slide. Detached gastric glands were washed twice with PBS, followed by centrifugation at 200 g for 5min and re-suspended with Matrigel. 200ml of Matrigel-cell mixture was then added to each well of a pre-warmed 24-well plate. After the mixture solidified, 1ml of standard gastric organoid medium [advanced DMEM/F12 (Cat#12634010, Thermo Fisher Scientific), 1x GlutaMax (Cat#35050061, Thermo Fisher Scientific), 1x HEPES (Cat#15630080, Thermo Fisher Scientific), 1x P/S, 50% Wnt3a, 10% RSPO-1, 10% Noggin, 1xB27 (Cat#17504001, Thermo Fisher Scientific), 50ng/mL EGF(Cat#17504001, Thermo Fisher Scientific), 200ng/mL FGF10 (Cat#100-26, Peprotech), 1mMN-Acetylcystenine (Cat#A9165, Sigma-Aldrich), 1nM Gastrin (Cat#G9145, Sigma-Aldrich), 2 mM A83-01 (Cat#2939/10, Tocris), 10 mM Y-27632 (Cat#1254/10, Tocris), and 1 mg/ul primocin were added to each well. Growth factors including Wnt3a, RSPO-1 and Noggin were prepared as conditioned medium for organoid cultures using a previous protocol ⁵. Fresh medium was added every 2-3 days. For histological analysis, the organoids were fixed in 4% paraformaldehyde for 1 hour, embedded in 2% agarose gel, or directly fixed in the matrigel with formalin to prepare the paraffin blocks for sectioning and staining.

Alcian blue staining

Alcian blue staining were performed as previously described⁶. Briefly, sections were treated with 3% acetic acid solution for 3 minutes, then stained in Alcian blue (Cat#A3157, Sigma) for 30 minutes and counterstained with Nuclear Fast Red (Cat#N8002, Sigma).

Protein isolation and Western blotting

The cells were extracted in RIPA lysis buffer (CAT#89900, Thermo Fisher Scientific, USA), containing a protease inhibitor cocktail (Sigma-Aldrich, Saint Louis, MO, USA). The lysates were centrifuged at 12,000 rpm (4°C for 15 min) and the protein concentration was quantified using a BCA protein assay kit (Thermo Scientific, Waltham, MA, USA). The following primary antibodies were used: rabbit anti-SOX9 (1:2000, AB5535, Sigma-Aldrich), rabbit anti-β-tubulin (1:1,000; AF7011, Affinity Biosciences, Cincinnati, OH, USA), which was used as a control. Signal detection was performed using an ImageQuant LAS 4000 mini-instrument (GE Healthcare, Piscataway, NJ, USA).

BrdU pulse-chase and paired-cell assays

The assays were processed using a previous protocol⁷. In brief, TrypLE Express (Cat#12604013, Thermo Fisher Scientific) was used to dissociate human gastric cancer cell from the organoids to obtain single-cell suspensions. Cells were then cultured for 2 weeks in the presence of 1μM BrdU and the medium containing freshly prepared BrdU was changed every 72h. For BrdU chasing, the cells were washed, seeded on coated coverslips in medium without BrdU, and synchronized through a thymidine–nocodazole–blebbistatin sequence to control cell division for entering second mitosis and paired-cell formation⁷⁻⁹. Twenty minutes after releasing from the nocodazole-induced cell cycle arrest, cells were incubated with 50 uM blebbistatin for 60 minutes followed by fixation with 4% paraformaldehyde. We monitored and photographed the phase-contrast and immunofluorescent images of mitotic cells when the two daughter cells were really separated from each other. The cells were sequentially incubated in 1N HCl followed by 2N HCl to open the DNA structure. Immediately after the acid wash, borate buffer (0.1 M, pH=8.0) was used to neutralize cells at room temperature. For fluorescence microscopy, the cells were then washed and incubated with corresponding primary and second antibody. According to the previous studies, if the fluorescent intensity of BrdU in the BrdU high daughter cell was more than 2-fold higher than that in BrdU low daughter cell, we defined this cell division mode as asymmetrical cell division. If the

BrdU intensity difference was less than 1.5-fold, defined this cell division mode as symmetrical cell division¹⁰. Images were obtained with Leica DMi8 inverted microscope and Zeiss LSM T-PMT confocal laser-scanning microscope.

Data acquisition and characteristics

The raw and processed data were acquired from The Cancer Genome Atlas (TCGA) (up to April 1, 2021). The TCGA-STAD (The Cancer Genome Atlas stomach adenocarcinoma), GSE13911 and GSE66229 datasets were used in the present study. The TCGA-STAD dataset was downloaded from the Genomic Data Commons (GDC) data portal (<http://portal.gdc.cancer.gov/>,). GSE13911 and GSE66229 datasets were downloaded from the Gene Expression Omnibus (GEO) database (<http://www.ncbi.nlm.nih.gov/geo/>). The mRNA expression data and clinical information were downloaded, and the following samples were excluded: (1) “0” gene expression values and (2) incomplete survival information and pathological characteristics. These processes were performed in R, using “RTCGA Toolbox” R packages. In addition, for TCGA, GSE13911 and GSE66229 datasets, RNA-sequencing data were transformed by $\log_2(x + 1)$, and then z-score normalization was performed. Student's t-test was used to compare Sox9 mRNA expression levels between gastric cancer tissues and adjacent tissues.

Data availability statement

The source of mouse corpus scRNA-seq datasets was from¹¹. FASTQ files were downloaded from NCBI (SRP227356). Any additional data are available from the corresponding authors upon request.

Supplementary Figure Legend

Figure S1. Precancerous and cancer lesion developed in the gastric tissues of Sox2-CreERT; Kras(LSL-G12D) mutants following Kras activation and MNU treatment. Related to Figure 1. (A) Schematic depicts the generation of Sox2-CreERT;Kras(LSL-G12D) mutants. (B) Gross pathological changes in the gastric tissues of Sox2-CreERT;Kras(LSL-G12D) mutants at different time points. Arrow indicates a tumor nodule. (C-E) Histological sections of the gastric tissues stained with hematoxylin and eosin (H&E) and Alcian blue. Note the expansion of mucous metaplasia in Sox2-CreERT;Kras(LSL-G12D) mutants at 45dpi (days post-tamoxifen induction) and 120dpi. (F) Metaplasia progresses over time indicated by GSII and GIF co-immunostaining in the gastric tissues of Sox2-CreERT;Kras(LSL-G12D) mutant mice. (G)

Quantification of GSII+GIF+ cells shown in F (n=7 per group). (H) Schematic diagram for MNU treatment. MNU was given every other week for the first 8 weeks. (I) Macroscopic images and H&E staining of gastric cancer nodules induced by MNU in WT mouse. Circles indicate tumor area. Data are expressed as mean \pm SD. Statistical analyses used unpaired t-test or one-way ANOVA test. *p < 0.05; **p < 0.01; ***p < 0.001; n.s. not significant. Scale bar in B, I (left panel) 5 mm; C, 50 μ m; D-F, I (right panel) 100 μ m.

Figure S2. Expansion of Sox9+ cells in the corpus following acute injury and long-term inflammation. Related to Figure 1. (A) UMAP annotation of the integrated cells isolated from the corpus of healthy wildtype mice, mice treated with high doses of tamoxifen (Tmx) and TxA23 transgenic mice. (B) UMAP showing the major cell types in the corpus including the epithelium, endothelium, mesenchyme and immune cells. (C) UMAP showing the expression of the epithelial marker Epcam. (D) UMAP showing the specific epithelial clusters from the three groups. (E) Violin plot showing the expression level of Sox9 in various epithelial clusters. (F) Violin plot indicating increased expression of Sox9 transcripts in the corpus epithelial cells isolated from mice treated with Tmx and TxA23 transgenic mice. (G) UMAP showing the distribution of gastric epithelial cell lineages as indicated by specific marker genes. ***p < 0.001; ****p < 0.0001.

Figure S3. Major gastric cell types are present in the lineage labeled organoids derived from Sox9-CreERT;Rosa26Tdtomato mice. Related to Figure 2. Note the presence of Sox2+ and Sox9+ cells, enteroendocrine (ChgA+), pit (Muc5AC+), parietal (HK-ATPase+) and chief cells (Gif+). Scale bars, 100 μ m.

Figure S4. Sox2 and Sox9 expression in the gastric tissues and the combined use of Cre-loxp and Flippase (Flp)-Fr^t systems to circumvent undesired targeting. Related to Figure 2 and 3. (A) H&E staining of the intestine of Sox9-CreERT;Kras(LSL-G12D) mutants at 120 dpi. Arrows indicate tumor nodules. (B) Schematic depicts the expression pattern of Sox2 and Sox9 in mouse digestive tract. (C) Immunostaining of Sox2 and Sox9 in the human stomach. (D) Lineage tracing shows that Sox2+ cells give rise to Sox9+ cells. (E) Representative images of immunofluorescence of Sox2 and Sox9 in the intestine and esophagus of WT mice. (F) Immunostaining of Sox2, Sox9 and GFP in the intestine and esophagus isolated from Sox2-CreERT;Sox9Flp;R26Fr^t-STOP-Frt-GFP mutant mice. Note GFP is not expressed in both tissues. Scale bar in A, C, E, F 100 μ m; D, 50 μ m.

Figure S5. Rapid and widespread gastric cancer formation in Sox2-CreERT;Sox9Flp; Kras(Frt-STOP-Frt-G12D); P53R172H (SSKP) mutants. Related to Figure 3. (A) H&E and Alcian blue staining of the gastric tissues isolated from SSKP mutants at 90 dpi. Arrows indicate cancer cells. Note Alcian blue staining was performed in a neighboring tissue section. (B) H&E staining

of the gastric tissues of SSKP mutants at 150 dpi. Arrows indicate cancer cells. Note invasive cancer cells in the muscularis, vessels and perigastric lymph node. Also note the presence of signet ring cell carcinoma foci (arrow in the bottom right panel). (C) Alcian blue staining of the gastric tissues isolated from SSKP mutant mice at 150 dpi. (D) H&E staining indicates metastasis in the liver and peritoneal of SSKP mutants at 240dpi. Scale bars, 100 μ m.

Figure S6. SOX9 is important for gastric carcinogenesis but dispensable for the maintenance of homeostasis. Related to Figure 4. (A) Schematic depicts the generation of Sox2-CreERT;Sox9fl/fl; Rosa26Tdtomato mice. (B) Deletion of Sox9 in Sox2+ cells was confirmed by immunofluorescence staining of the gastric tissues from Sox2-CreERT;Sox9fl/fl;Rosa26Tdtomato mice at 6 dpi. (C) Lineage tracing of the corpus and antrum isolated from Sox2-CreERT; Rosa26Tdtomato mice at 30 dpi. (D) Representative H&E staining of Sox2-CreERT;Sox9fl/fl; Rosa26Tdtomato mice at 30 dpi. (E) Representative lineage-tracing of Sox2-CreERT;Sox9fl/fl; Rosa26Tdtomato mice at 30 and 120 dpi. (F) Co-immunostaining of TdT in enteroendocrine cell (ChgA+), tuft cell (Dclk1+), pit cell (Muc5AC+), parietal cell (HK-ATPase+) and chief cell (Gif+) in the gastric tissues of Sox2-CreERT; Sox9fl/fl; Rosa26Tdtomato mice at 120 dpi. Scale bars, 100 μ m.

Figure S7. Sox9 is essential for the formation of gastric cancer organoid. Related to Figure 4. (A) Deletion of SOX9 in N87, KATOIII and AGS cells with CRISPR/Cas9 was confirmed by Western blotting. β -tubulin serves as a control. (B) Expression of SOX9 in N87, KATOIII and AGS cell lines was confirmed by immunofluorescence. (C) Representative images of control and SOX9 KO KATOIII and AGS-derived organoids. Arrows indicate organoids. (D) H&E staining and immunofluorescence of SOX2, SOX9 and Ki67 in control and SOX9 KO organoids. Scale bars in B, 10 μ m; C, 1 mm; D, 50 μ m.

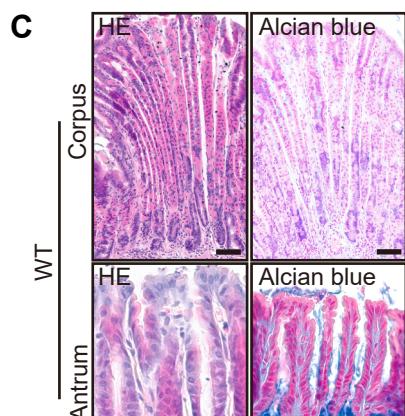
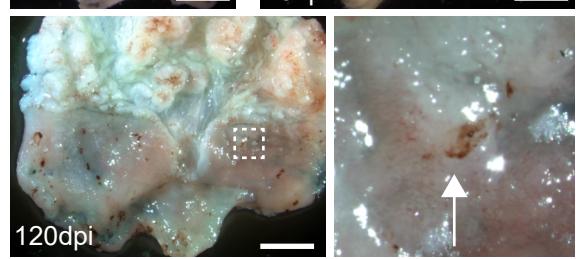
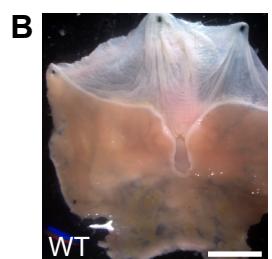
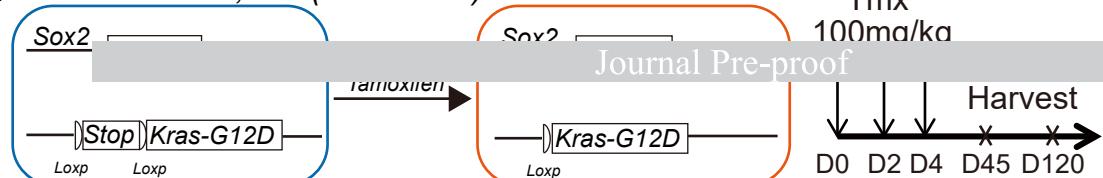
Figure S8. Sox9 deletion reduces symmetric division, however does not affect apoptosis or proliferation in oncogene-expressing cells. Related to Figure 5. (A) Representative images and quantification of apoptotic cells (activated Caspase3+) in the gastric tissues of Sox2-CreERT; Kras(LSL-G12D) mutants with and without Sox9 deletion at different time points ($n = 3$ per group). Arrows indicate activated Caspase3+ cells. (B) Representative images and quantification of proliferating cells (Ki67 +) in Sox2-CreERT;Kras(LSL-G12D) mutant mice with and without Sox9 deletion at different time points ($n = 3$ per group). (C) Representative images of mitotic angles of gastric epithelial cells in Sox2-CreERT;Kras(LSL-G12D) mutants with and without Sox9 deletion and SSKP mice at different time points. The basement membrane (BM) is labeled with integrin a8 (ITGa8). Data are presented as mean \pm SD. Statistical analyses used unpaired t-test or one-way ANOVA test. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. no significance. Scale bars, 100 μ m.

Figure S9. Deletion of SOX9 reduces symmetric division in paired-cell assay. Related to Figure 6. Representative images of symmetric and asymmetric division in gastric cancer cells (N87, KATOIII and AGS) assessed by paired-cell assay. Aurora B indicates the mid-body. Scale bars, 5 μ m.

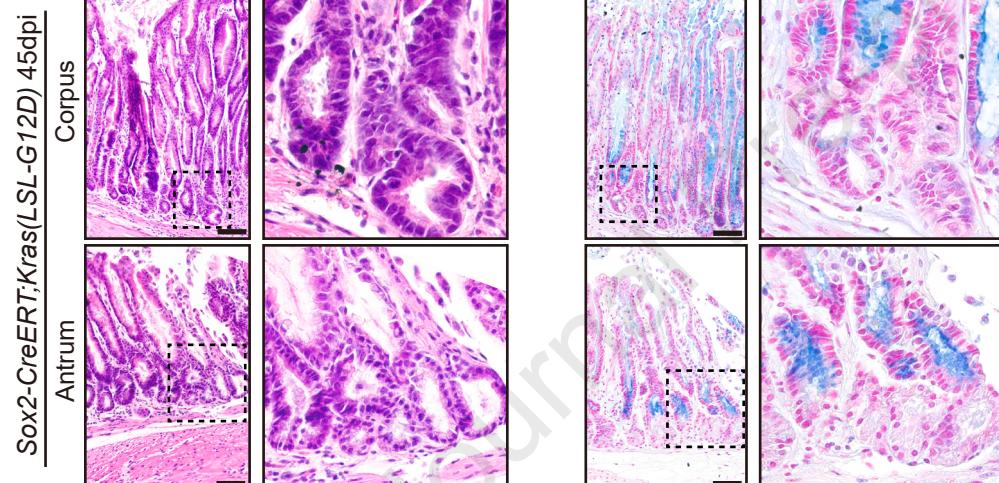
References:

1. Washington K. 7th edition of the AJCC cancer staging manual: stomach. *Annals of surgical oncology* 2010;17:3077-9.
2. Lechler T, Fuchs E. Asymmetric cell divisions promote stratification and differentiation of mammalian skin. *Nature* 2005;437:275-280.
3. Bartfeld S, Bayram T, van de Wetering M, et al. In vitro expansion of human gastric epithelial stem cells and their responses to bacterial infection. *Gastroenterology* 2015;148:126-136. e6.
4. Yan HH, Siu HC, Law S, et al. A comprehensive human gastric cancer organoid biobank captures tumor subtype heterogeneity and enables therapeutic screening. *Cell stem cell* 2018;23:882-897. e11.
5. Miyoshi H, Stappenbeck TS. In vitro expansion and genetic modification of gastrointestinal stem cells in spheroid culture. *Nature protocols* 2013;8:2471-2482.
6. Jiang M, Ku W-Y, Zhou Z, et al. BMP-driven NRF2 activation in esophageal basal cell differentiation and eosinophilic esophagitis. *The Journal of clinical investigation* 2015;125:1557-1568.
7. Hwang W, Jiang J, Yang S, et al. MicroRNA-146a directs the symmetric division of Snail-dominant colorectal cancer stem cells. *Nature cell biology* 2014;16:268-80.
8. Matsui Y, Nakayama Y, Okamoto M, et al. Enrichment of cell populations in metaphase, anaphase, and telophase by synchronization using nocodazole and blebbistatin: a novel method suitable for examining dynamic changes in proteins during mitotic progression. *European journal of cell biology* 2012;91:413-9.
9. Wang K, Wloka C, Bi E. Non-muscle Myosin-II Is Required for the Generation of a Constriction Site for Subsequent Abscission. *iScience* 2019;13:69-81.
10. Zhang K, Guo Y, Wang X, et al. WNT/ β -Catenin Directs Self-Renewal Symmetric Cell Division of hTERT Prostate Cancer Stem Cells. *Cancer research* 2017;77:2534-2547.
11. Bockerstett KA, Lewis SA, Wolf KJ, et al. Single-cell transcriptional analyses of spasmolytic polypeptide-expressing metaplasia arising from acute drug injury and chronic inflammation in the stomach. *Gut* 2020;69:1027-1038.

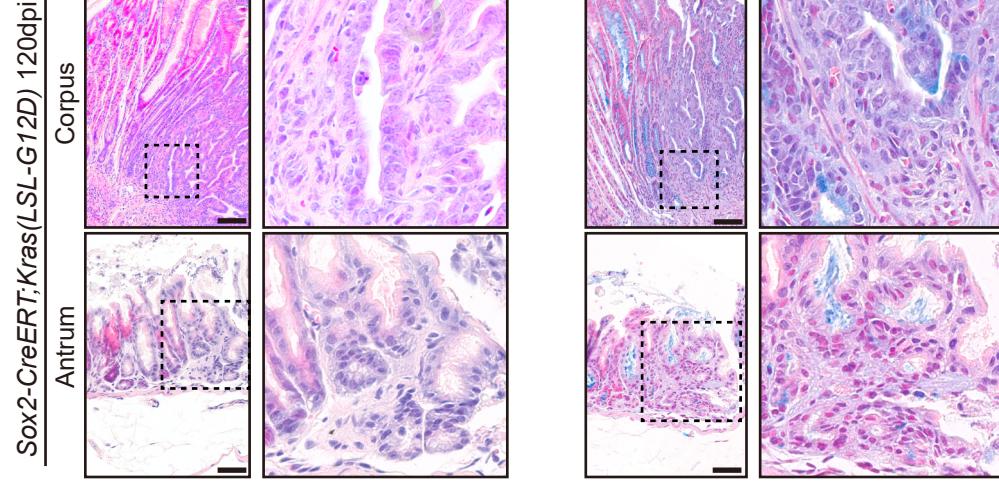
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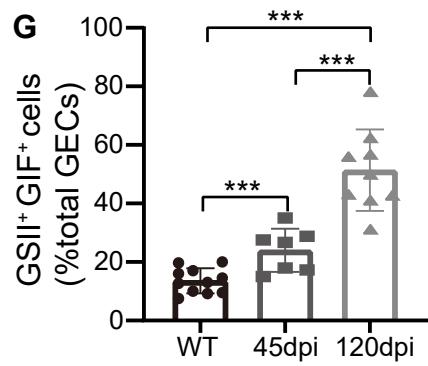
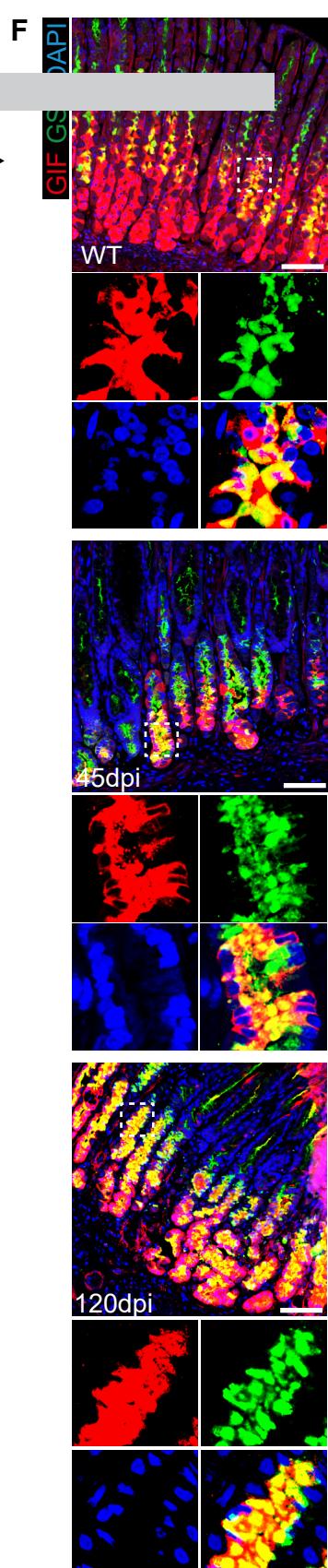
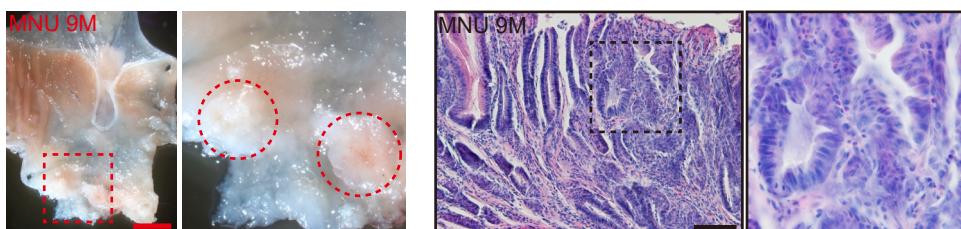
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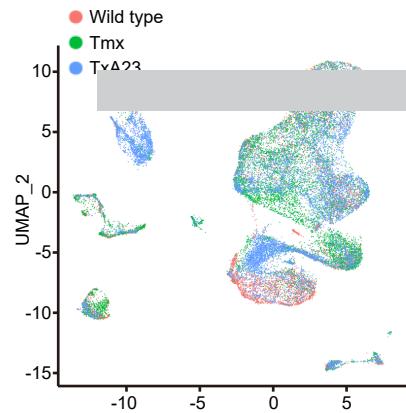
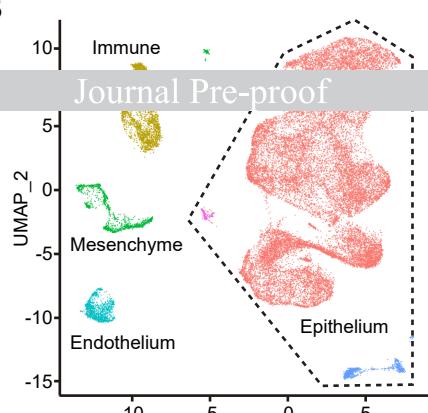
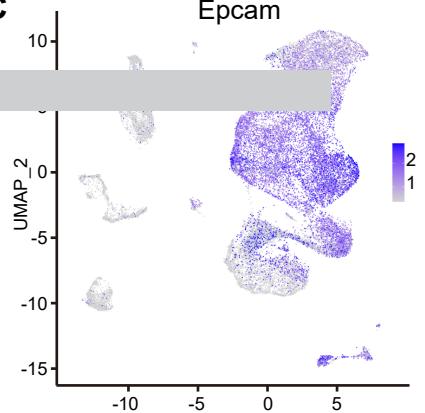
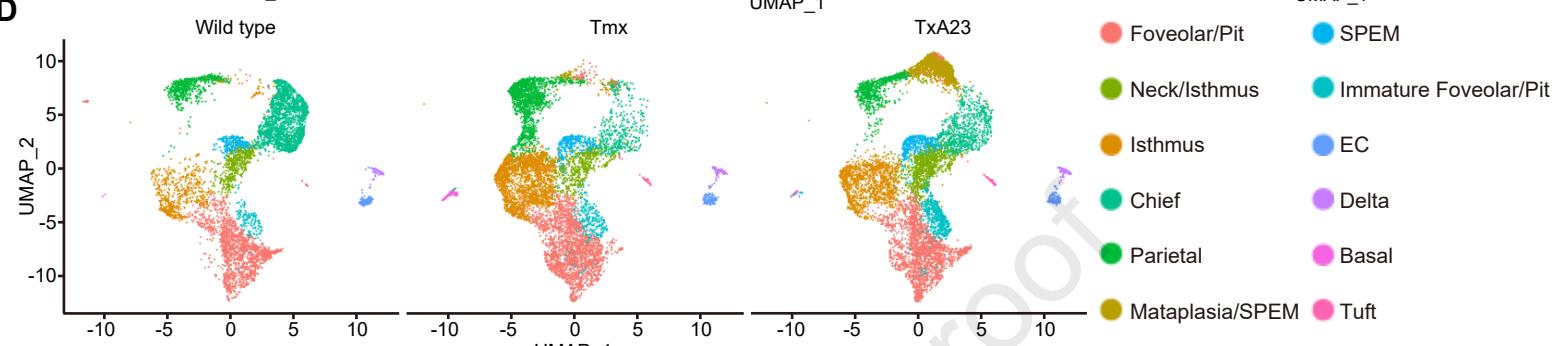
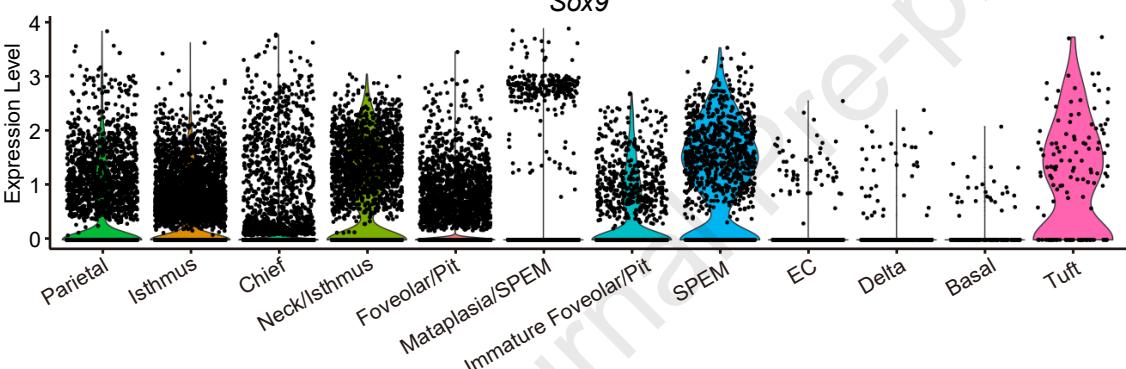
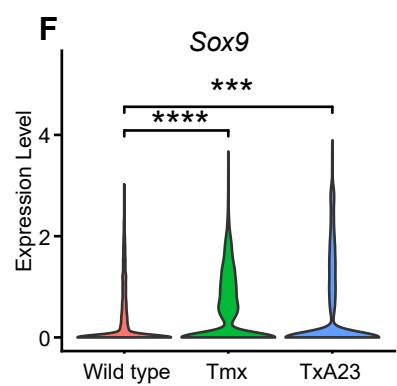
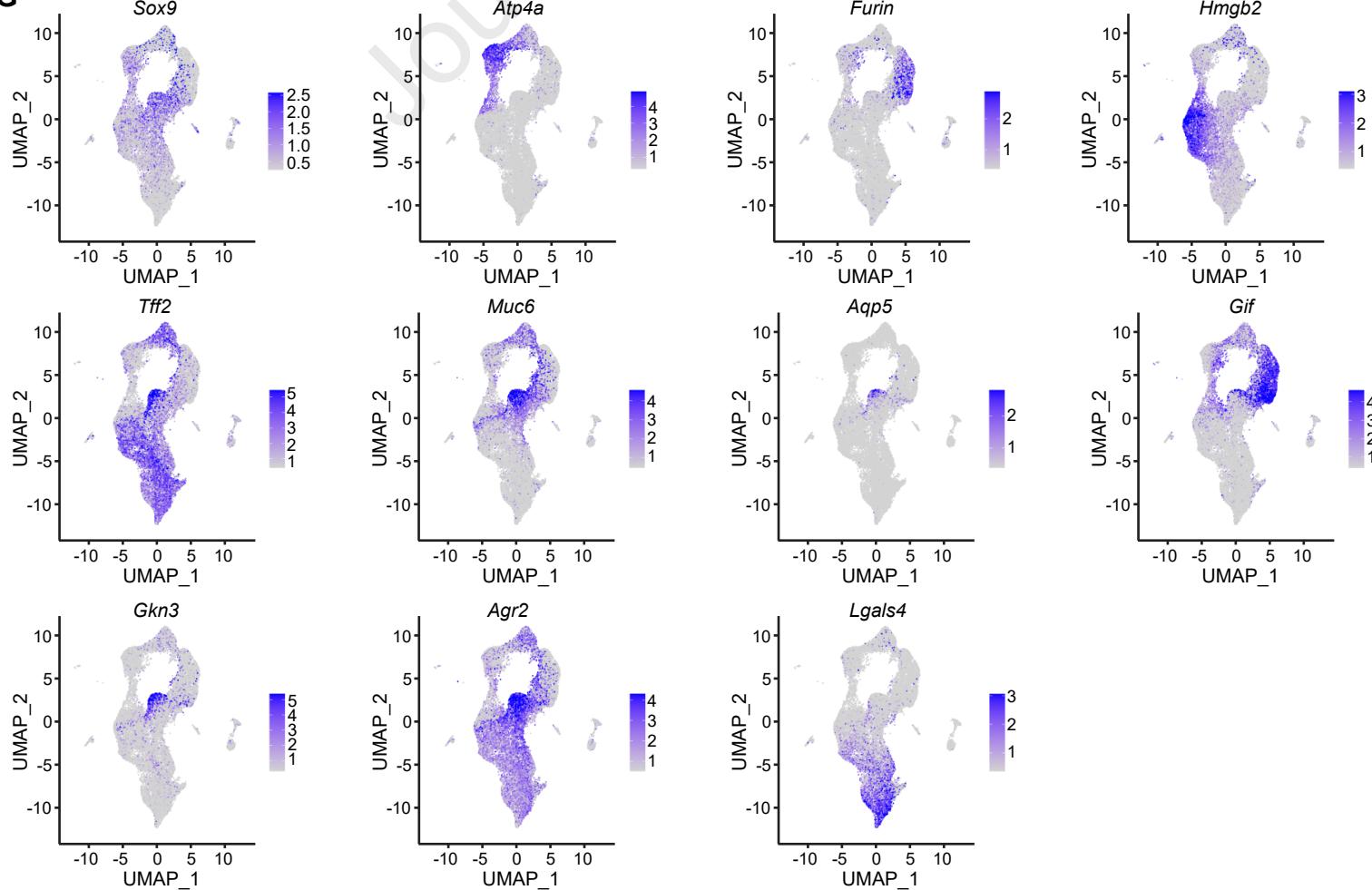


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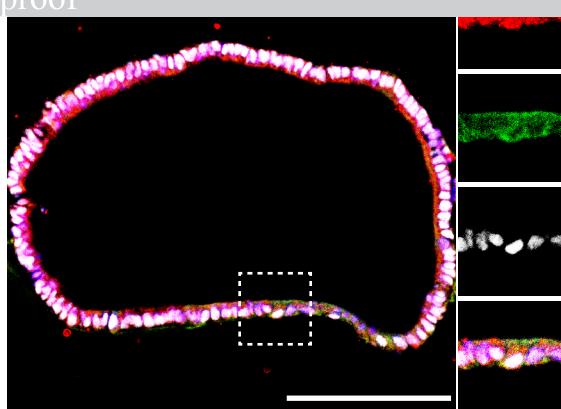
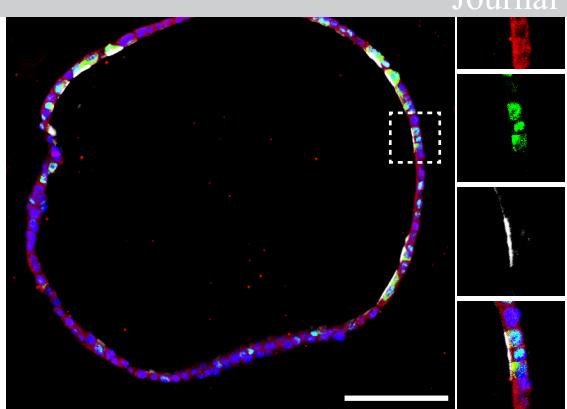


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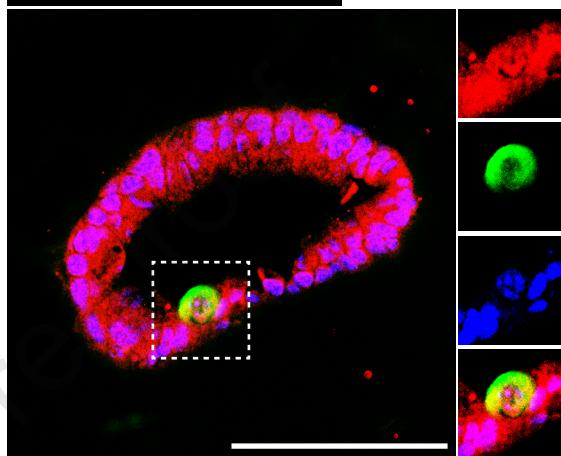
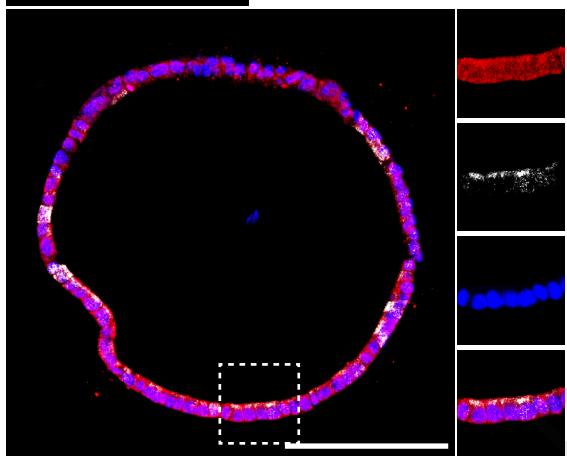
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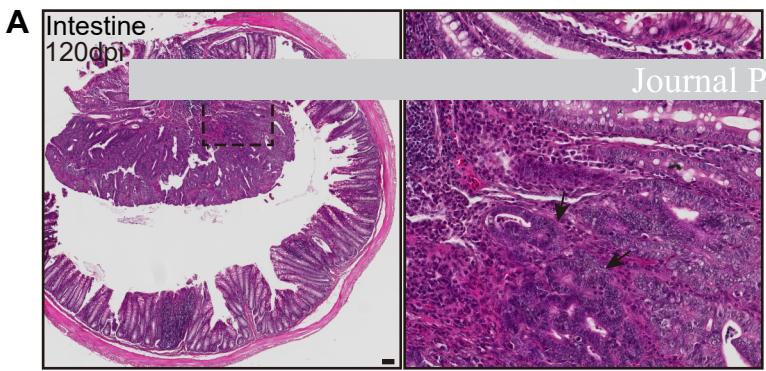
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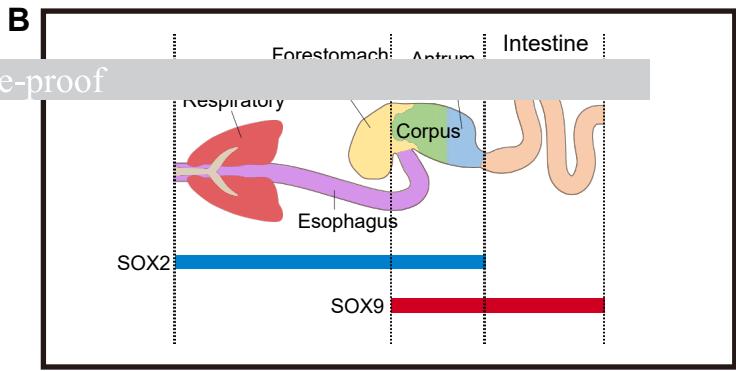
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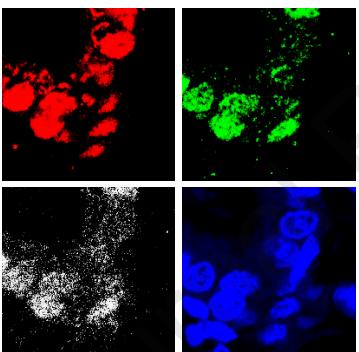
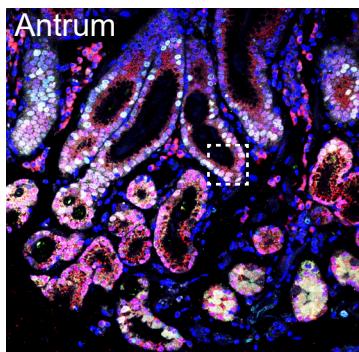
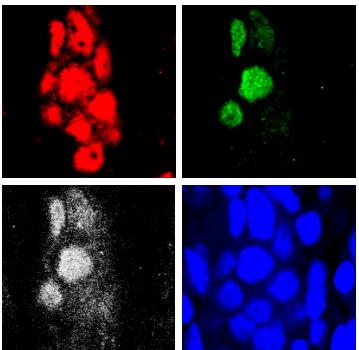
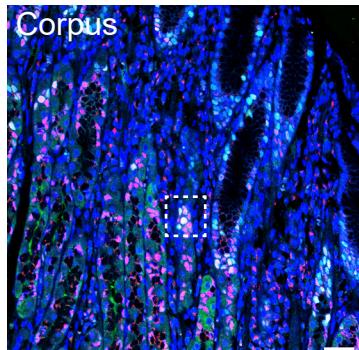


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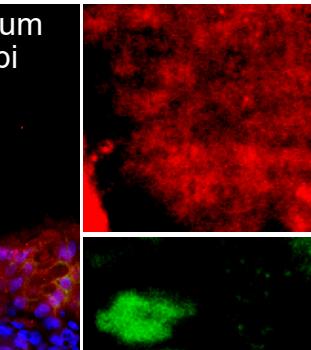
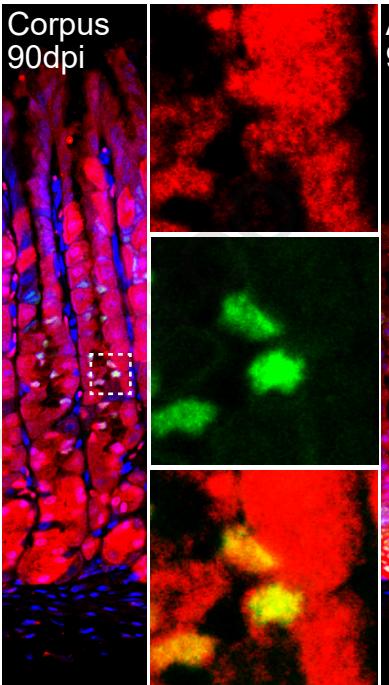
Sox2 and Sox9 expression in mice

C SOX2 SOX9 Ki67 DAPI



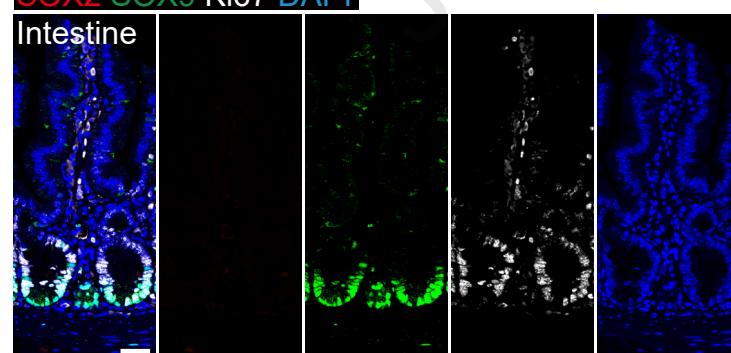
Human stomach

D Tdtomato SOX9 DAPI

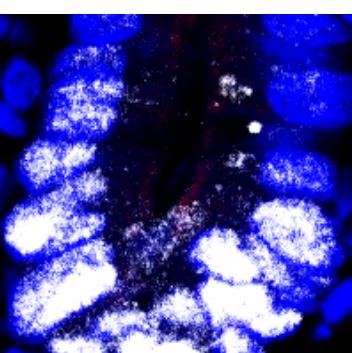
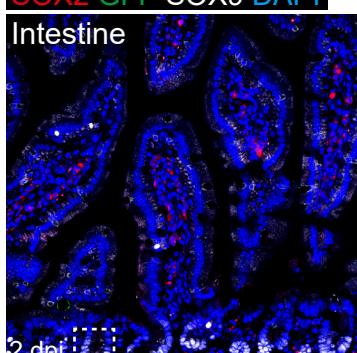


Sox2-CreERT;Rosa26^{Tdtomato}

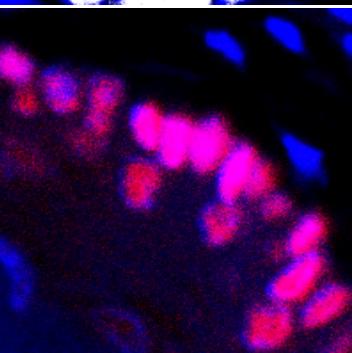
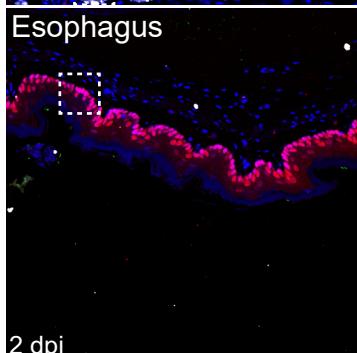
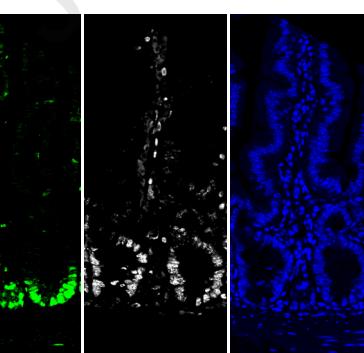
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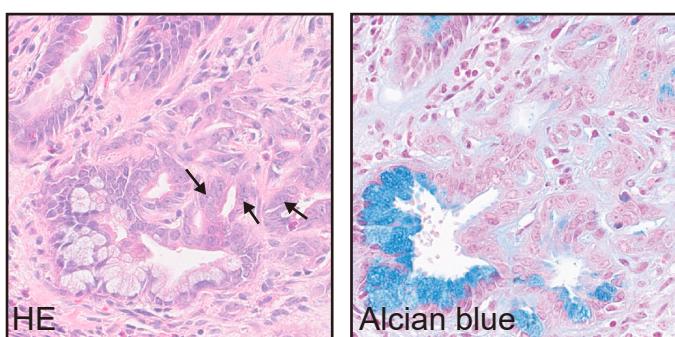
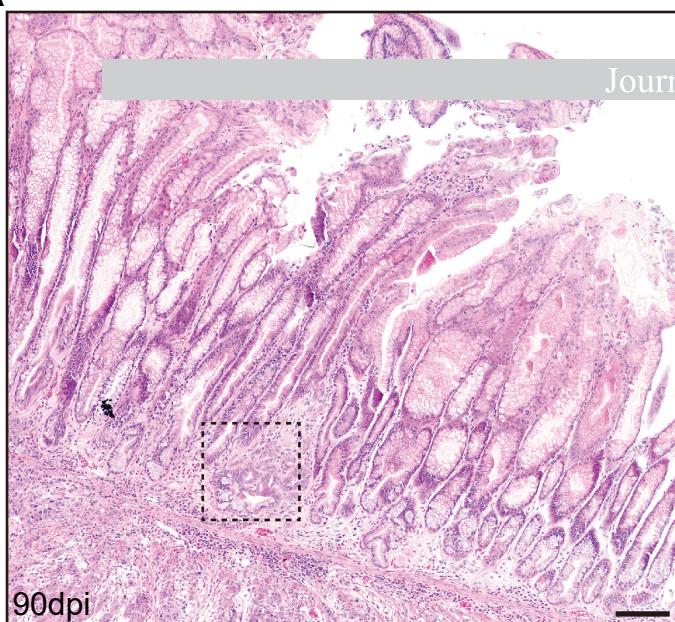
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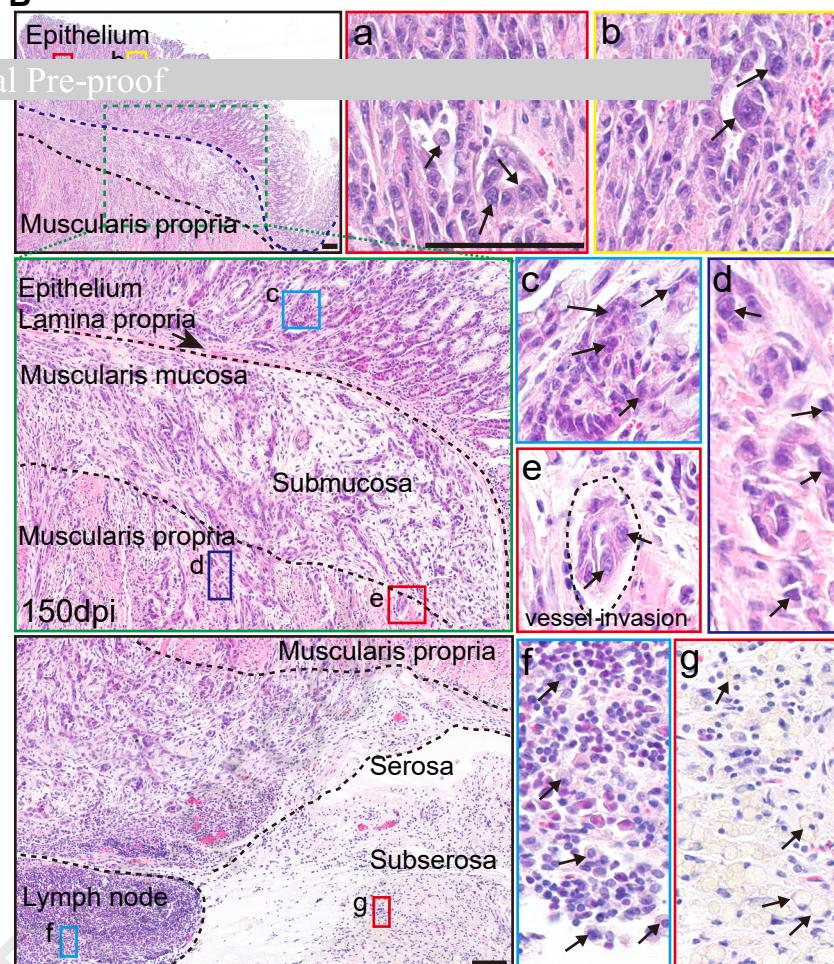
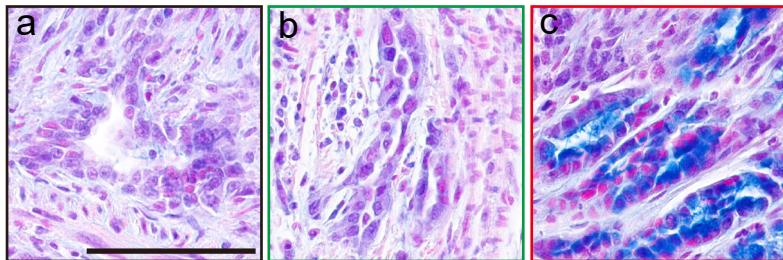
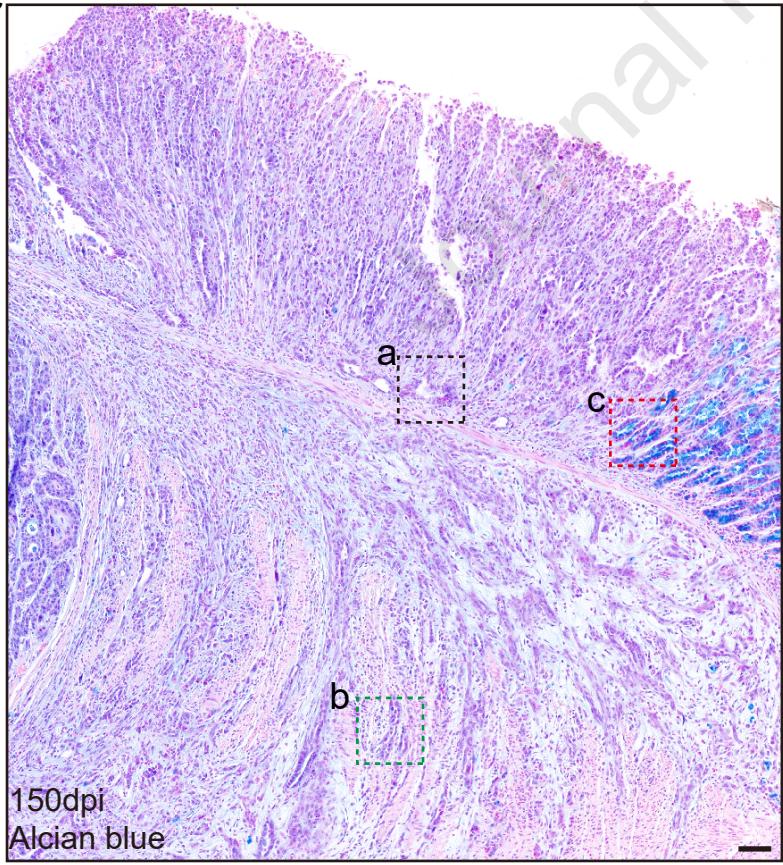
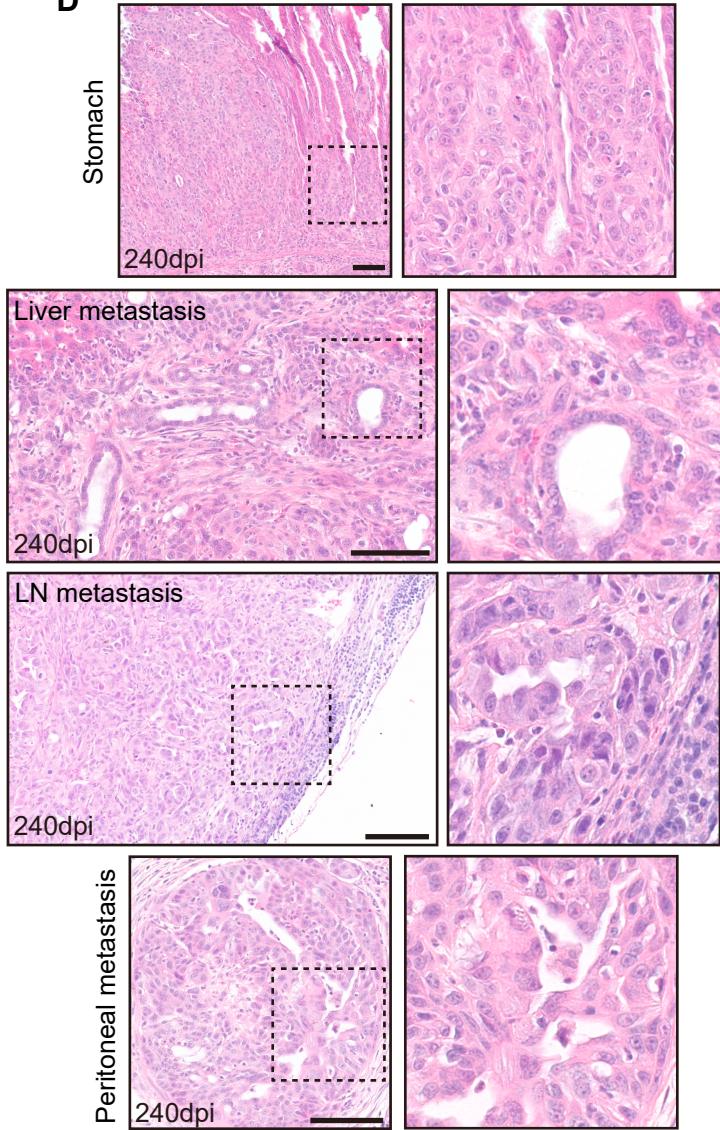
Esophagus



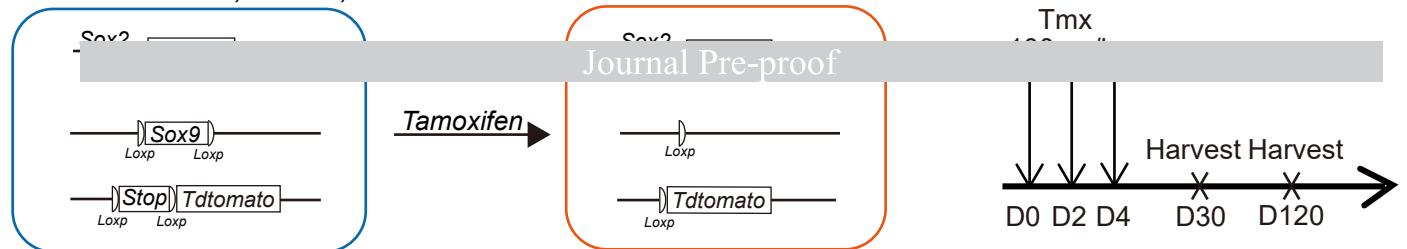
2 dpi

A**B**

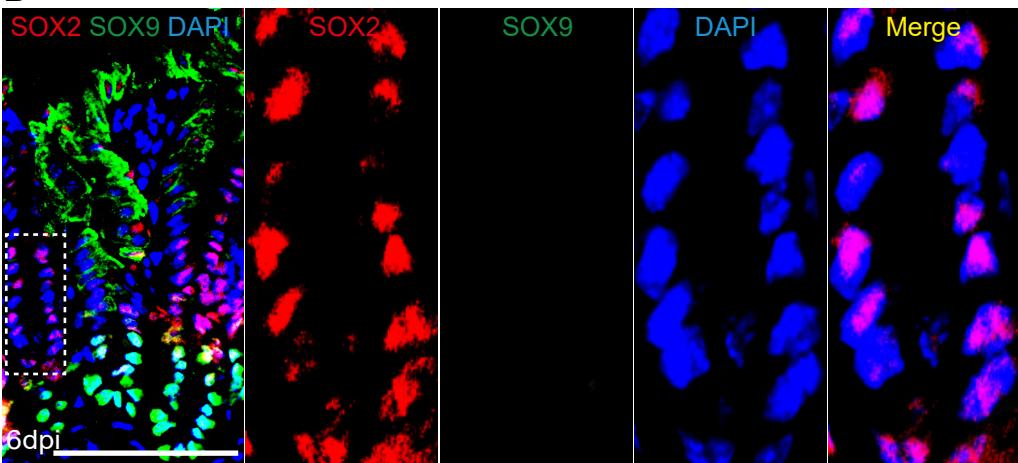
Journal Pre-proof

**C****D**

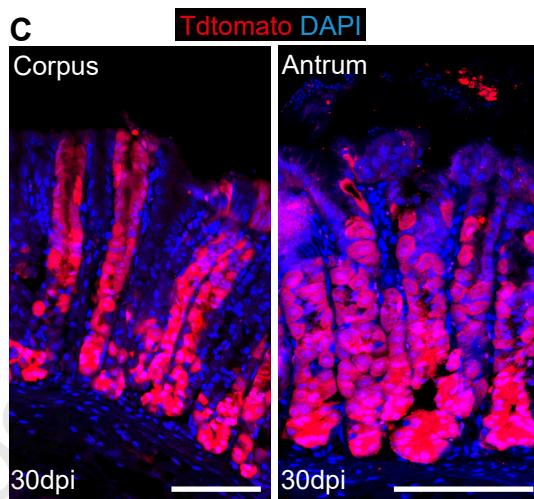
A *Sox2-CreERT;Sox9^{f/f};Rosa26^{TdTomato}*



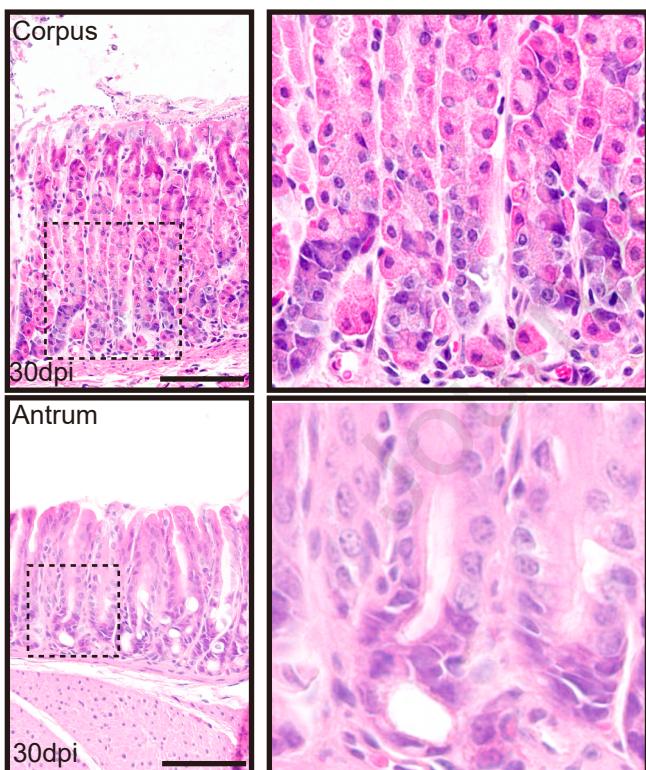
B



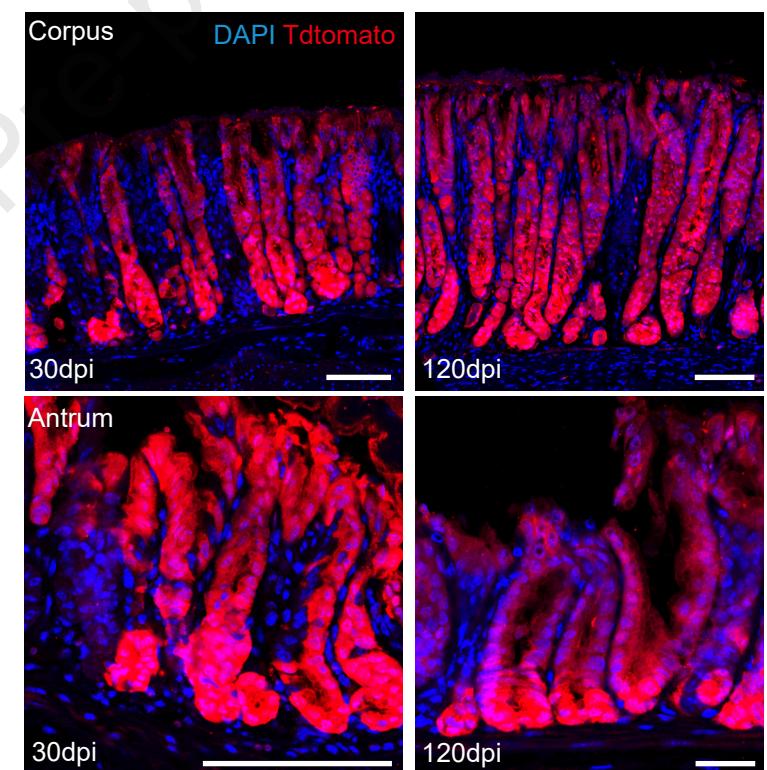
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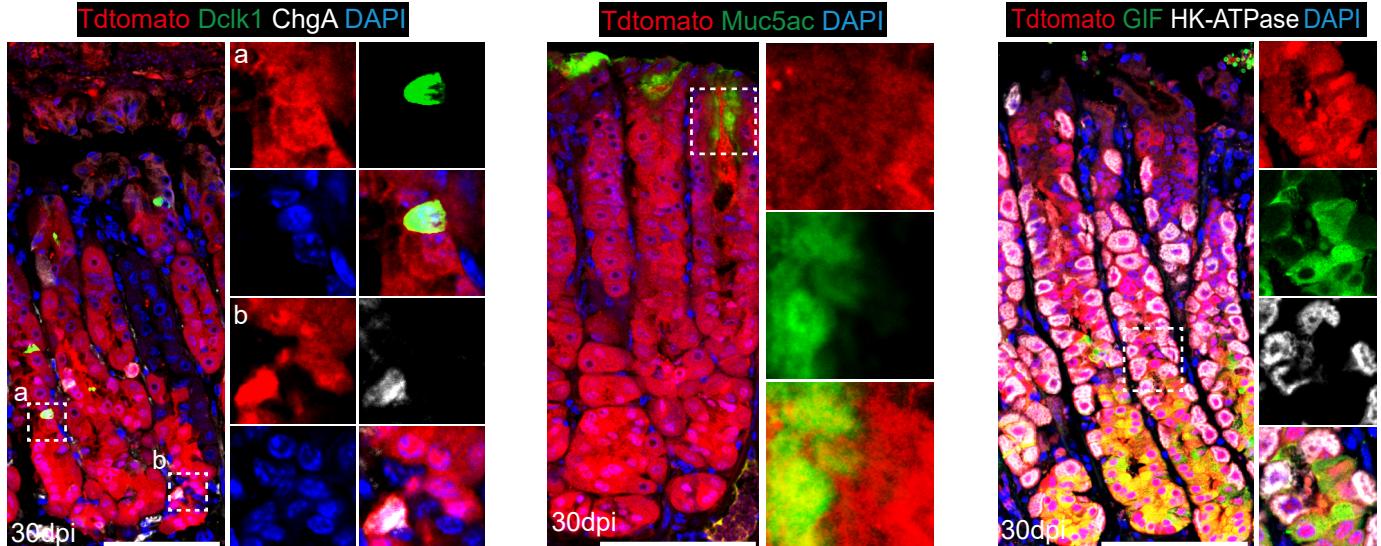
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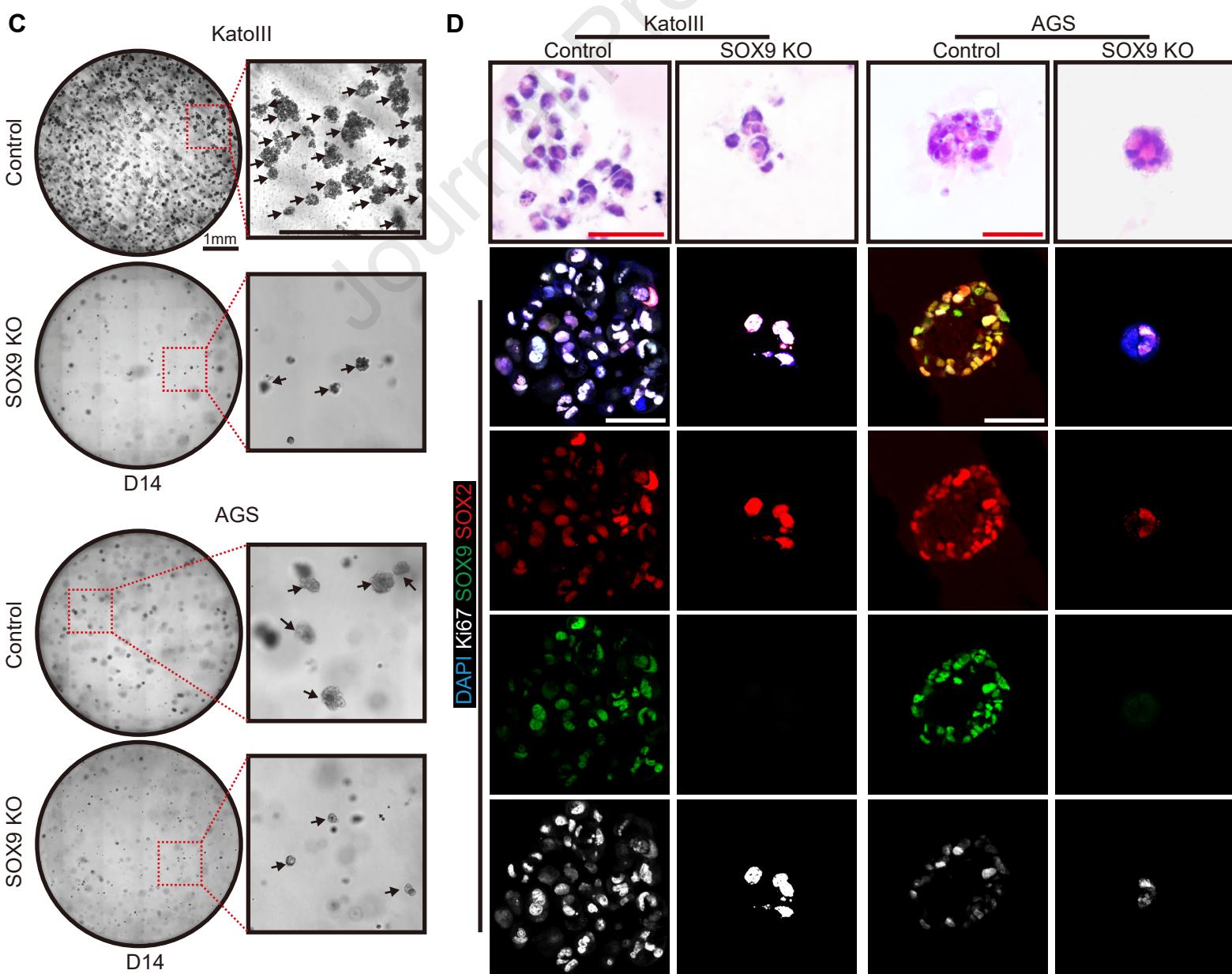
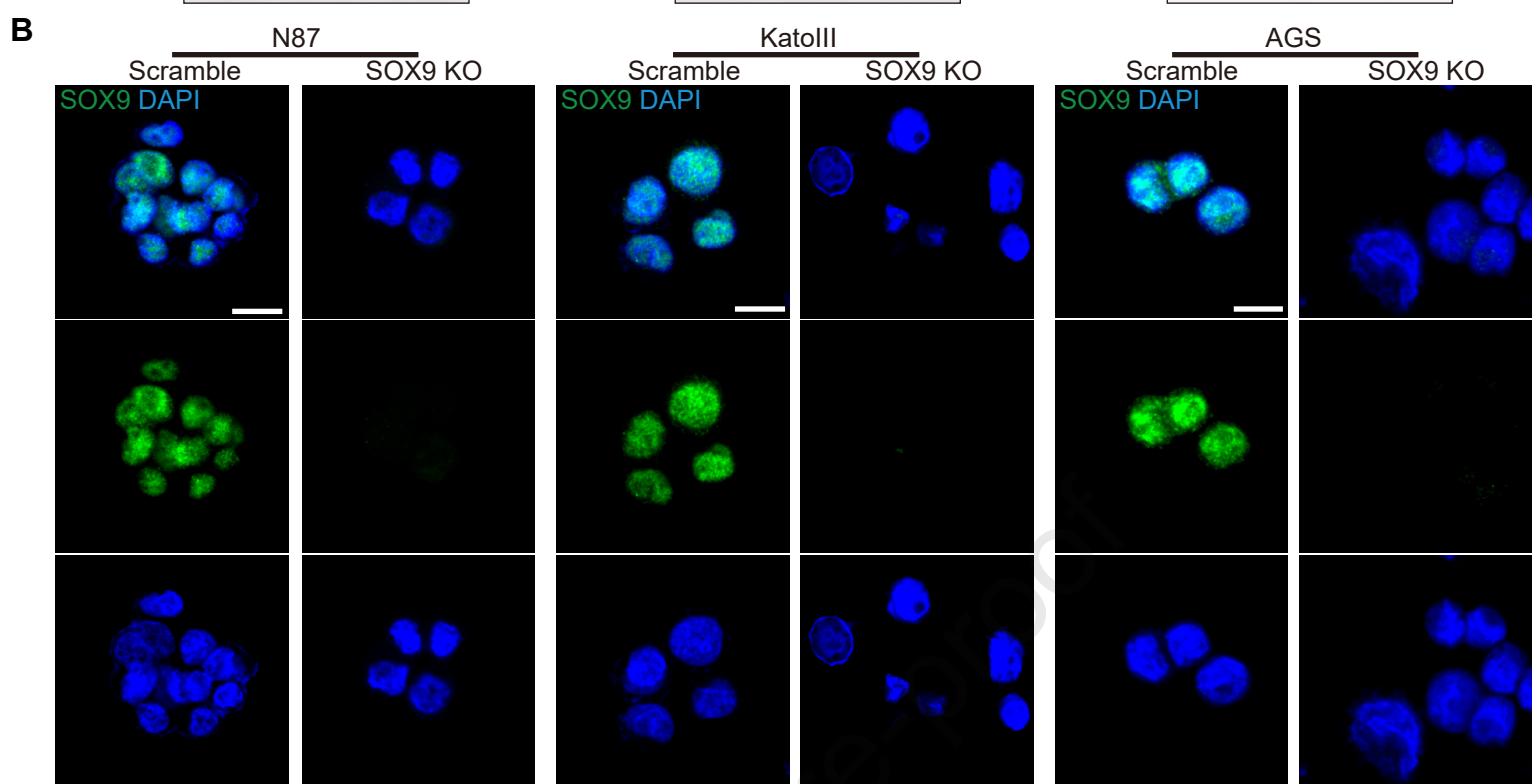
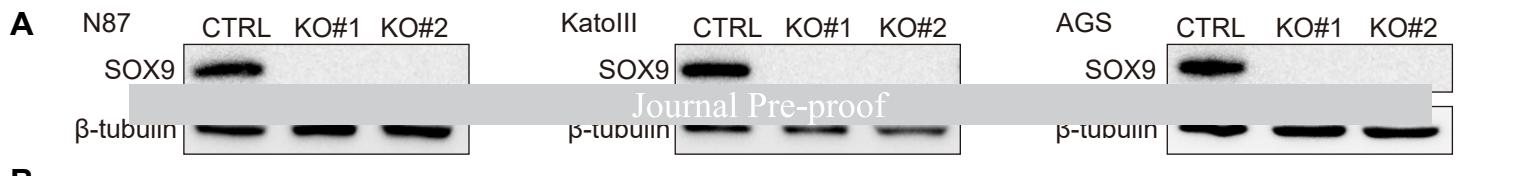


E



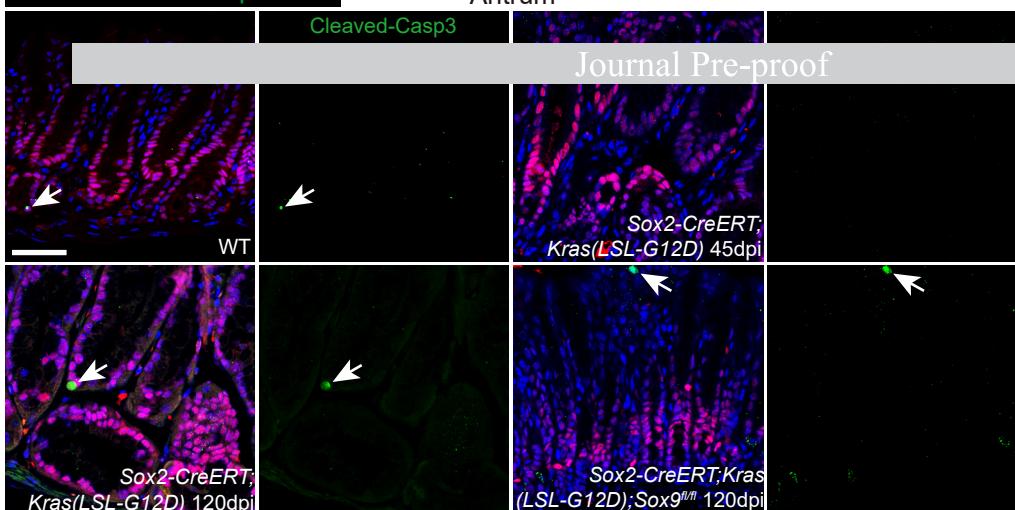
F



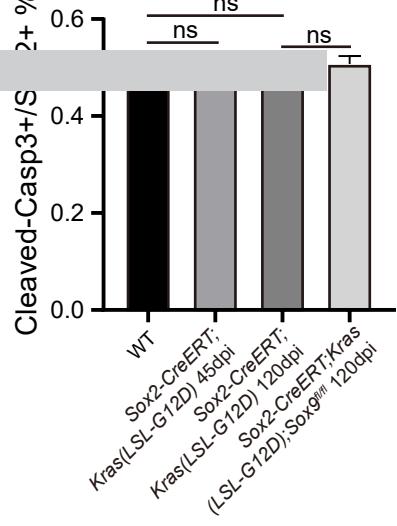


A SOX2 Cleaved-Casp3 DAPI

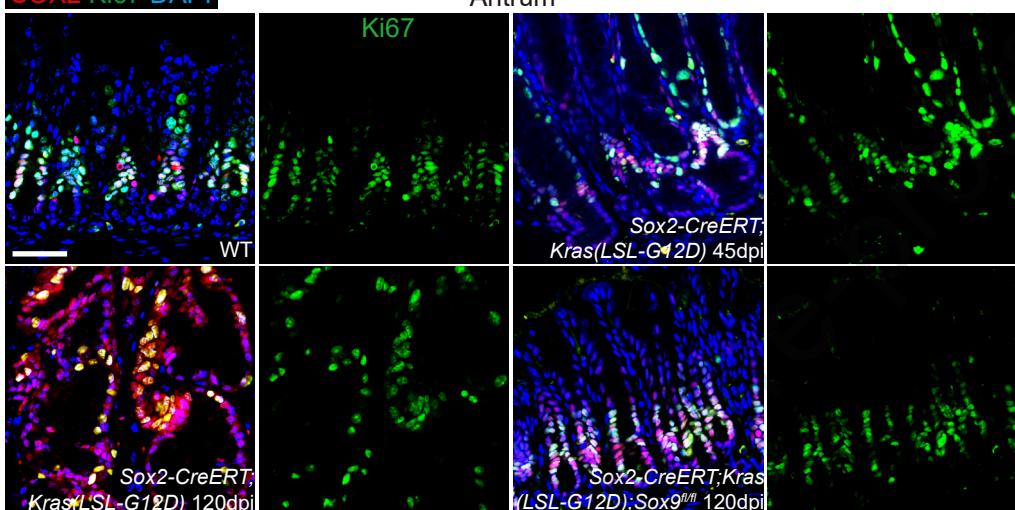
Antrum



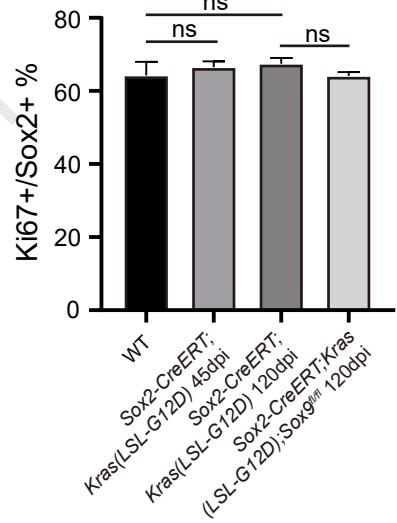
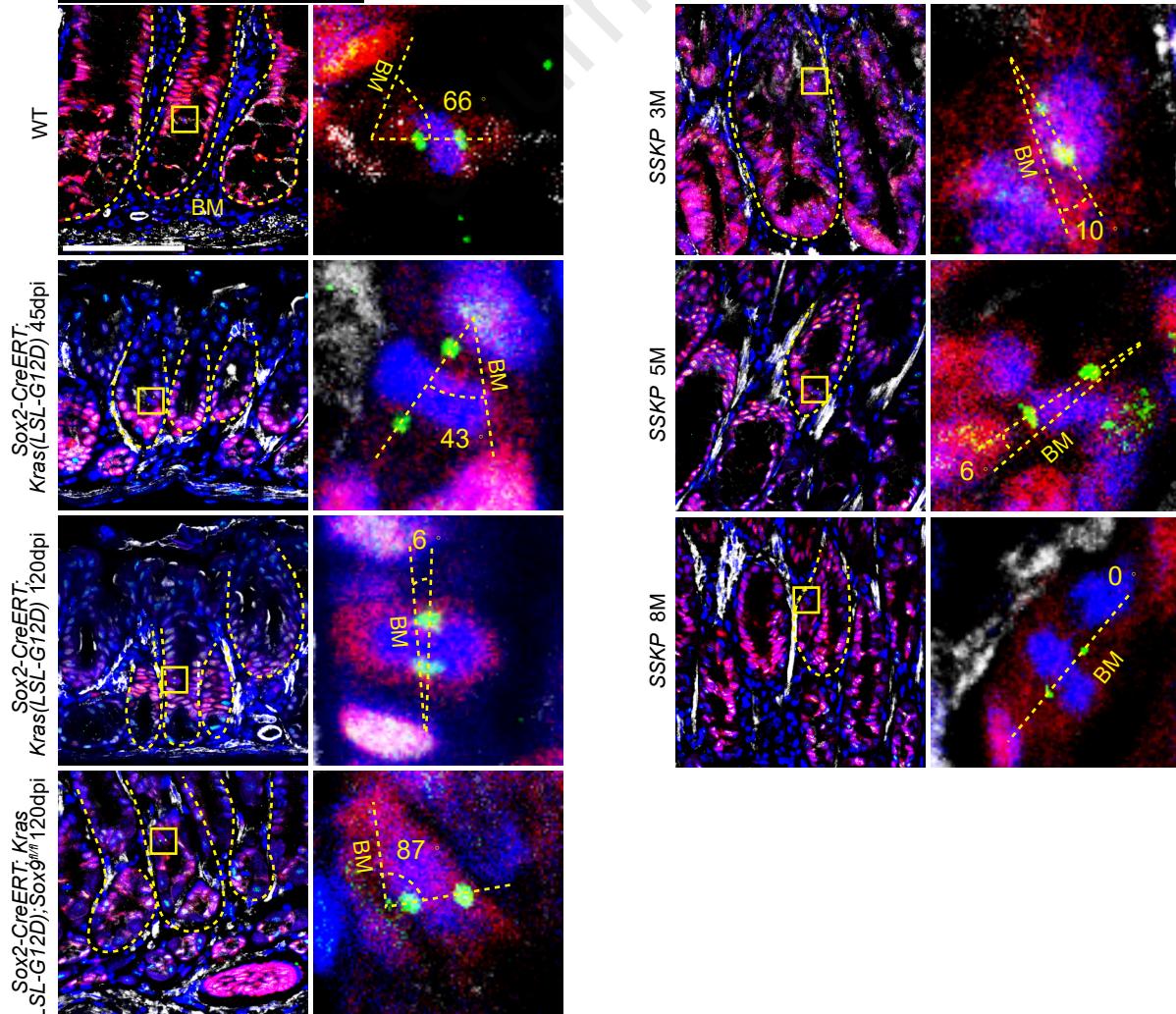
2+ %

**B SOX2 Ki67 DAPI**

Antrum



Ki67+/SOX2+ %

**C SOX2 NUMA ITGa8 DAPI**

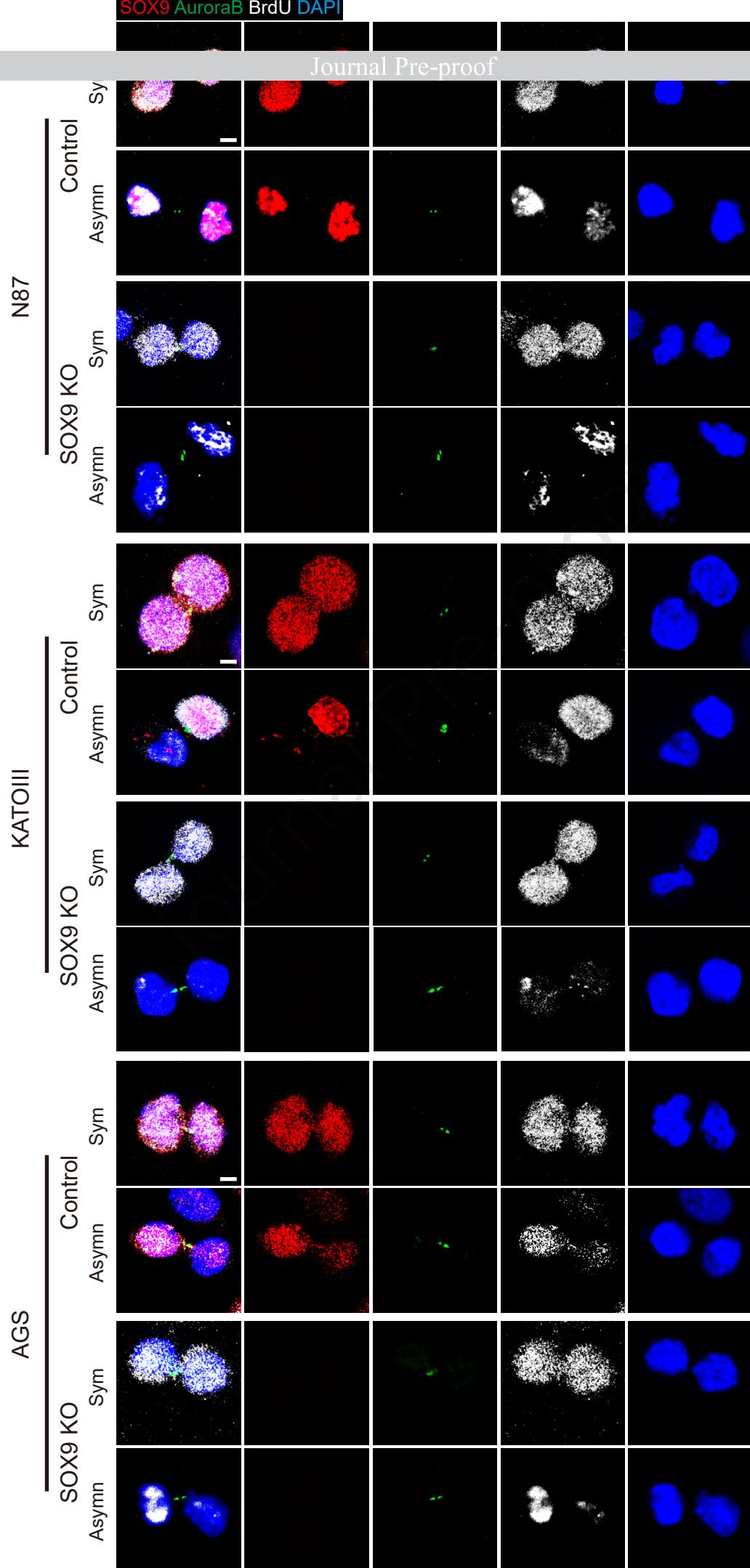


Table S1 The unique genes of SOX2 and SOX9 double positive cell population

gene	p_val	avg_logFC	pct.1	pct.2	p_val adj
Journal Pre-proof					
Cdk4	1.84E-166	0.2732433	0.842	0.495	3.56E-162
Ifitm2	4.86E-164	0.3051439	0.765	0.427	9.38E-160
Hmgn1	4.50E-147	0.3354597	0.896	0.593	8.69E-143
Bex4	7.45E-144	0.2508671	0.514	0.23	1.44E-139
Sox4	8.74E-141	0.2873243	0.645	0.324	1.69E-136
Tceal9	1.15E-139	0.267	0.911	0.615	2.22E-135
Tstd1	1.24E-138	0.2766063	0.518	0.234	2.39E-134
Gm8186	2.07E-136	0.2578327	0.685	0.365	4.01E-132
Golm1	1.10E-133	0.2694908	0.761	0.432	2.13E-129
Cxcl17	3.10E-131	0.259134	0.736	0.416	6.00E-127
Epcam	1.00E-128	0.3177335	0.975	0.743	1.94E-124
Tuba1b	2.37E-121	0.386274	0.678	0.39	4.59E-117
Cdk1	4.23E-118	0.254407	0.368	0.149	8.18E-114
Selenoh	3.73E-116	0.261768	0.733	0.434	7.21E-112
Hmgb1	1.35E-113	0.3035255	0.954	0.708	2.60E-109
Gstm2	2.69E-113	0.2950119	0.917	0.655	5.21E-109
Npm1	1.87E-112	0.3520319	0.973	0.768	3.60E-108
Ranbp1	2.37E-112	0.2936383	0.839	0.568	4.57E-108
Eef1a1	1.65E-110	0.2827939	0.998	0.94	3.20E-106
Stmn1	6.42E-109	0.2559885	0.524	0.265	1.24E-104
Hmgb2	2.55E-108	0.4390287	0.728	0.448	4.92E-104
Rps27a	6.63E-103	0.2803469	0.993	0.93	1.28E-98
Ppib	1.59E-102	0.3125556	0.97	0.794	3.06E-98
Rpl10a	1.28E-100	0.289828	0.994	0.892	2.47E-96
Glul	6.19E-99	0.2730052	0.945	0.706	1.20E-94
Wfdc2	1.51E-98	0.2883918	0.77	0.47	2.92E-94
Ifitm3	2.91E-98	0.48444885	0.641	0.396	5.62E-94
Top2a	3.92E-98	0.2869803	0.343	0.146	7.57E-94
Rpl15	7.88E-98	0.2865267	0.992	0.888	1.52E-93
Tubb5	5.37E-94	0.3263691	0.753	0.495	1.04E-89
Clu	2.30E-93	0.4769301	0.983	0.86	4.44E-89
Ran	5.49E-93	0.2973792	0.912	0.664	1.06E-88
Rps5	1.43E-92	0.2700764	0.994	0.919	2.77E-88
Mt2	2.60E-92	0.3864333	0.804	0.53	5.03E-88
Rplp0	6.50E-92	0.2743458	0.995	0.933	1.26E-87
Eef1b2	2.84E-91	0.2686427	0.972	0.79	5.49E-87
Hist1h2ap	1.27E-90	0.5618747	0.334	0.144	2.45E-86
Ppia	2.00E-90	0.2958638	0.998	0.933	3.85E-86
Rpl13	5.38E-90	0.260634	0.999	0.947	1.04E-85
Rps7	4.01E-88	0.2593503	0.993	0.894	7.75E-84
Gpx2	4.42E-88	0.3008102	0.89	0.635	8.55E-84
Cks2	1.01E-87	0.3197046	0.522	0.29	1.95E-83
Muc6	1.18E-86	0.2554214	0.611	0.331	2.27E-82
Rpsa	2.39E-86	0.2879497	0.996	0.91	4.62E-82
Rps4x	9.66E-84	0.2615637	0.995	0.914	1.87E-79
Rps8	1.93E-83	0.2855697	0.996	0.919	3.73E-79
Rps20	4.61E-82	0.2836087	0.993	0.915	8.90E-78
Ptma	7.92E-81	0.3152767	0.997	0.931	1.53E-76
Hsp90ab1	1.91E-80	0.276484	0.996	0.872	3.69E-76
Rps10	2.38E-80	0.2556727	0.992	0.9	4.60E-76
Rpl10-ps3	3.78E-79	0.2929812	0.88	0.642	7.30E-75
Rpl30	4.88E-78	0.2631435	0.993	0.894	9.42E-74
Agr2	6.19E-77	0.539697	0.891	0.678	1.20E-72
Rpl7a	6.63E-74	0.2508581	0.988	0.851	1.28E-69
Rpl3	6.39E-73	0.2607845	0.988	0.864	1.23E-68
Rpl7	1.81E-71	0.2761551	0.987	0.851	3.50E-67
Birc5	1.33E-68	0.2681835	0.384	0.2	2.57E-64
Pga5	8.38E-65	0.5096266	0.441	0.244	1.62E-60
Ube2c	2.55E-62	0.3902673	0.387	0.213	4.93E-58
H2afz	2.61E-62	0.3027186	0.964	0.793	5.03E-58
Rpl9-ps6	3.21E-60	0.3192061	0.787	0.6	6.20E-56
Gkn3	1.05E-56	0.7948898	0.351	0.19	2.02E-52
Mt1	4.48E-51	0.3161518	0.978	0.871	8.66E-47
Bpifb1	1.70E-47	0.2576978	0.606	0.398	3.29E-43
Gm10076	1.68E-35	0.2561572	0.93	0.831	3.24E-31

Table S2GO term analysis of SOX2 and SOX9 double positive cell population

Analysis Type: Ann Analyzed List: Reference List: Test Type: Correction:	PANTHER Overrepresentation Test									
	Journal Pre-proof									
	upload_1 (Mus musculus)	Mus musculus (all genes in database)	FISHER	FDR	Mus musculus	upload_1 (65)	expected	fold Enrichment	raw P-value	FDR
GO biological process complete										
cellular response to interleukin-4 (GO:0071353)	26	5	0.08	65.08	3.04E-08	2.82E-05				
response to interleukin-4 (GO:0070670)	28	5	0.08	60.43	4.23E-08	3.33E-05				
cytoplasmic translation (GO:0002181)	111	17	0.33	51.83	4.70E-24	7.42E-20				
maturation of LSU-rRNA (GO:0000470)	29	4	0.09	46.68	2.63E-06	1.54E-03				
cellular response to cadmium ion (GO:0071276)	26	3	0.08	39.05	8.44E-05	2.77E-02				
regulation of nuclelease activity (GO:0032069)	27	3	0.08	37.6	9.36E-05	2.89E-02				
positive regulation of cell cycle G2/M phase transition (GO:1902751)	32	3	0.09	31.73	1.49E-04	3.74E-02				
negative regulation of viral life cycle (GO:1903901)	34	3	0.1	29.86	1.77E-04	4.28E-02				
response to fatty acid (GO:0070542)	36	3	0.11	28.2	2.07E-04	4.72E-02				
ribosomal large subunit biogenesis (GO:0042273)	68	5	0.2	24.88	2.44E-06	1.54E-03				
ribosomal small subunit biogenesis (GO:0042274)	72	5	0.21	23.5	3.18E-06	1.73E-03				
translation (GO:0006412)	357	19	1.05	18.01	9.61E-19	7.57E-15				
regulation of signal transduction by p53 class mediator (GO:1901796)	80	4	0.24	16.92	1.11E-04	3.18E-02				
peptide biosynthetic process (GO:0043043)	381	19	1.13	16.88	3.05E-18	1.60E-14				
regulation of viral genome replication (GO:0045069)	90	4	0.27	15.04	1.71E-04	4.22E-02				
positive regulation of protein localization to nucleus (GO:1900182)	92	4	0.27	14.71	1.86E-04	4.31E-02				
positive regulation of cell cycle phase transition (GO:1901989)	116	5	0.34	14.59	2.90E-05	1.20E-02				
positive regulation of mitotic cell cycle phase transition (GO:1901992)	95	4	0.28	14.25	2.09E-04	4.71E-02				
amide biosynthetic process (GO:0043604)	485	19	1.43	13.26	2.19E-16	6.90E-13				
ribosome biogenesis (GO:0042254)	286	11	0.85	13.02	1.03E-09	1.35E-06				
positive regulation of mitotic cell cycle (GO:0045931)	130	5	0.38	13.02	4.90E-05	1.80E-02				
peptide metabolic process (GO:0006518)	524	20	1.55	12.92	4.95E-17	1.95E-13				
regulation of protein localization to nucleus (GO:1900180)	150	5	0.44	11.28	9.44E-05	2.86E-02				
mitotic cell cycle phase transition (GO:0044772)	154	5	0.46	10.99	1.06E-04	3.16E-02				
protein stabilization (GO:0050821)	193	6	0.57	10.52	2.65E-05	1.13E-02				
cell cycle phase transition (GO:0044770)	165	5	0.49	10.26	1.46E-04	3.83E-02				
ribonucleoprotein complex biogenesis (GO:0022613)	402	12	1.19	10.1	2.67E-09	3.24E-06				
rRNA processing (GO:0006364)	207	6	0.61	9.81	3.88E-05	1.49E-02				
cellular macromolecule biosynthetic process (GO:0034645)	725	20	2.14	9.34	1.96E-14	5.16E-11				
cellular amide metabolic process (GO:0043603)	767	20	2.27	8.82	5.48E-14	1.23E-10				
rRNA metabolic process (GO:0016072)	240	6	0.71	8.46	8.62E-05	2.77E-02				
regulation of epithelial cell proliferation (GO:0050678)	439	10	1.3	7.71	7.26E-07	4.98E-04				
positive regulation of cell cycle process (GO:0090068)	266	6	0.79	7.63	1.49E-04	3.79E-02				
positive regulation of cell cycle (GO:0045787)	354	7	1.05	6.69	9.13E-05	2.88E-02				
macromolecule biosynthetic process (GO:0009059)	1272	24	3.76	6.39	8.97E-14	1.77E-10				
cellular nitrogen compound biosynthetic process (GO:0044271)	1355	23	4	5.74	2.98E-12	5.22E-09				
organonitrogen compound biosynthetic process (GO:1901566)	1218	20	3.6	5.56	2.07E-10	2.97E-07				
positive regulation of protein localization (GO:1903829)	493	8	1.46	5.49	1.08E-04	3.17E-02				
cell division (GO:0051301)	506	8	1.5	5.35	1.29E-04	3.58E-02				
mitotic cell cycle (GO:0000278)	579	9	1.71	5.26	5.40E-05	1.89E-02				
cell cycle process (GO:0022402)	803	11	2.37	4.64	2.34E-05	1.05E-02				
cellular response to cytokine stimulus (GO:0071345)	695	9	2.05	4.38	2.11E-04	4.68E-02				
negative regulation of cell death (GO:0060548)	1118	13	3.3	3.94	2.15E-05	1.03E-02				
cellular macromolecule metabolic process (GO:0044260)	2348	27	6.94	3.89	1.52E-10	2.40E-07				
negative regulation of apoptotic process (GO:0043066)	962	11	2.84	3.87	1.17E-04	3.29E-02				
regulation of cell cycle (GO:0051726)	1067	12	3.15	3.81	6.43E-05	2.15E-02				
negative regulation of programmed cell death (GO:0043069)	985	11	2.91	3.78	1.43E-04	3.83E-02				
cellular biosynthetic process (GO:0044249)	2150	24	6.35	3.78	4.47E-09	5.03E-06				
positive regulation of cell population proliferation (GO:0008284)	1013	11	2.99	3.67	1.83E-04	4.37E-02				
organic substance biosynthetic process (GO:1901576)	2240	24	6.62	3.63	9.97E-09	1.05E-05				
biosynthetic process (GO:0009058)	2313	24	6.83	3.51	1.86E-08	1.83E-05				
regulation of apoptotic process (GO:0042981)	1560	16	4.61	3.47	9.67E-06	4.92E-03				
regulation of cell death (GO:0010941)	1767	18	5.22	3.45	2.53E-06	1.53E-03				
regulation of programmed cell death (GO:0043067)	1592	16	4.7	3.4	1.24E-05	6.13E-03				
gene expression (GO:0010467)	2412	24	7.13	3.37	4.15E-08	3.45E-05				
regulation of cell population proliferation (GO:0042127)	1745	16	5.16	3.1	3.82E-05	1.51E-02				
cellular response to chemical stimulus (GO:0070887)	2500	22	7.39	2.98	1.56E-06	1.02E-03				
cellular nitrogen compound metabolic process (GO:0034641)	3235	28	9.56	2.93	3.65E-08	3.19E-05				
protein metabolic process (GO:0019538)	3741	29	11.05	2.62	2.07E-07	1.56E-04				
response to organic substance (GO:0010033)	2641	20	7.8	2.56	5.03E-05	1.80E-02				
cellular component biogenesis (GO:0044085)	2437	18	7.2	2.5	1.86E-04	4.37E-02				
organelle organization (GO:0006996)	2886	21	8.53	2.46	5.48E-05	1.88E-02				
response to chemical (GO:0042221)	3602	25	10.64	2.35	2.53E-05	1.11E-02				
organonitrogen compound metabolic process (GO:1901564)	4762	31	14.07	2.2	5.37E-06	2.82E-03				
macromolecule metabolic process (GO:0043170)	5824	37	17.21	2.15	2.70E-07	1.93E-04				
nitrogen compound metabolic process (GO:0006807)	6312	37	18.65	1.98	2.76E-06	1.55E-03				
cellular component organization or biogenesis (GO:0071840)	5606	31	16.57	1.87	1.49E-04	3.84E-02				
cellular metabolic process (GO:0044237)	6217	34	18.37	1.85	4.67E-05	1.75E-02				
primary metabolic process (GO:0044238)	6871	37	20.3	1.82	2.16E-05	1.00E-02				
organic substance metabolic process (GO:0071704)	7593	39	22.44	1.74	3.51E-05	1.42E-02				
metabolic process (GO:0008152)	7979	39	23.58	1.65	1.36E-04	3.70E-02				

Table S3 The quantitation of immunofluorescence intensity of Brdu and Sox9 in paired-cell assays

Group	Pair cell No.	BrdU intensive value		Relative value	Pair cell type	SOX9 intensive value		Relative value
		First cell	Second ce			First cell	Second cell	
Control	1	2634	1416	1.86	sym	2498	2048	1.22
Control	2	2422	1486	1.63	sym	2554	2409	1.06
Control	3	2464	450	5.47	asym	3305	1469	2.25
Control	4	2524	530	4.76	asym	2919	671	4.35
Control	5	3276	593	5.52	asym	2563	476	5.39
Control	6	2668	652	4.09	asym	2818	621	4.54
Control	7	1996	1358	1.47	sym	3349	2189	1.53
Control	8	3337	3513	0.95	sym	2664	2114	1.26
Control	9	1964	2395	0.82	sym	1884	1922	0.98
Control	10	3389	1284	2.64	asym	2882	562	5.13
Control	11	3382	717	4.72	asym	2098	544	3.86
Control	12	3146	1015	3.1	asym	2342	432	5.42
Control	13	3400	2267	1.5	sym	3221	3391	0.95
Control	14	2258	2537	0.89	sym	2560	1803	1.42
Control	15	1968	1262	1.56	sym	1928	1483	1.3
Control	16	1984	548	3.62	asym	2893	704	4.11
Control	17	2738	638	4.29	asym	2620	764	3.43
Control	18	3425	2299	1.49	sym	2376	1964	1.21
Control	19	2539	1628	1.56	sym	2989	3690	0.81
Control	20	1974	698	2.83	asym	2513	478	5.26
Control	21	2165	1424	1.52	sym	2761	3174	0.87
Control	22	2542	521	4.88	asym	1905	346	5.5
Control	23	3043	1867	1.63	sym	2388	1730	1.38
Control	24	2442	1908	1.28	sym	2255	1367	1.65
Control	25	2606	1379	1.89	sym	1922	1393	1.38
Control	26	1885	1508	1.25	sym	2778	1769	1.57
Control	27	3034	2467	1.23	sym	1886	1849	1.02
Control	28	2381	1536	1.55	sym	2458	2892	0.85
Control	29	2943	3034	0.97	sym	2172	1349	1.61
Control	30	2258	2150	1.05	sym	3040	1600	1.9
Control	31	2418	448	5.4	asym	3221	1042	3.09
Control	32	3450	2029	1.7	sym	2169	1315	1.65
Control	33	3473	2008	1.73	sym	3075	3661	0.84
Control	34	3423	1923	1.78	sym	2877	1984	1.45
Control	35	2194	1675	1.31	sym	2919	3208	0.91
Control	36	2384	1528	1.56	sym	3151	1658	1.9
Control	37	3290	2384	1.38	sym	2387	1705	1.4
Control	38	3374	1555	2.17	asym	3027	898	3.37
Control	39	2445	2038	1.2	sym	3348	2462	1.36
Control	40	3151	3089	1.02	sym	3442	2776	1.24
Control	41	3160	1681	1.88	sym	3243	3276	0.99
Control	42	2514	2958	0.85	sym	2342	1541	1.52
Control	43	2676	2212	1.21	sym	2844	1571	1.81
Control	44	2912	1541	1.89	sym	2103	1384	1.52
Control	45	3294	2387	1.38	sym	3131	1994	1.57
Control	46	2586	1383	1.87	sym	2435	1458	1.67
Control	47	2355	2201	1.07	sym	2504	2140	1.17
Control	48	2591	2671	0.97	sym	3395	1962	1.73
Control	49	3089	2073	1.49	sym	3152	1751	1.8
Control	50	3055	1808	1.69	sym	2281	1702	1.34
Control	51	2245	1283	1.75	sym	3037	2080	1.46
Control	52	1971	696	2.83	asym	2660	598	4.45
Control	53	2608	513	5.08	asym	2103	666	3.16
Control	54	2099	792	2.65	asym	2922	1243	2.35
Control	55	2938	706	4.16	asym	2541	470	5.41
Control	56	3243	2268	1.43	sym	2009	1225	1.64
Control	57	2310	414	5.58	asym	3146	931	3.38
Control	58	2424	2090	1.16	sym	2475	1719	1.44
Control	59	2370	2347	1.01	sym	2774	2667	1.04
Control	60	2940	2697	1.09	sym	3210	2791	1.15
Control	61	2391	1733	1.38	sym	2247	1783	1.26
Control	62	1804	1279	1.41	sym	3228	2083	1.55

Control	64	3178	2192	1.45	sym	2760	2379	1.16
Control	65	3185	2275	1.4	sym	1947	2291	0.85
Control	66	3494	2478	1.41	sym	2575	2994	0.86
Control	67	2611	1467	1.78	sym	1867	2008	0.93
Control	68	2891	1742	1.66	sym	3246	1824	1.78
Control	69	2925	3079	0.95	sym	2794	2166	1.29
Control	70	2155	1995	1.08	sym	2960	1574	1.88
Control	71	3125	1917	1.63	sym	1819	1516	1.2
Control	72	2283	1254	1.82	sym	2489	1368	1.82
Control	73	1950	1625	1.2	sym	2681	1645	1.63
Control	74	2683	452	5.93	asym	2577	917	2.81
Control	75	2286	1044	2.19	asym	2704	585	4.62
Control	76	2099	572	3.67	asym	2256	770	2.93
Control	77	2219	1290	1.72	sym	2553	1616	1.58
Control	78	3447	2535	1.36	sym	2587	2174	1.19
Control	79	2078	1244	1.67	sym	2322	2150	1.08
Control	80	2636	3295	0.8	sym	2540	1388	1.83
Control	81	2766	1637	1.69	sym	3406	2792	1.22
Control	82	2377	1774	1.34	sym	2128	1702	1.25
Control	83	3251	2827	1.15	sym	2402	1334	1.8
Control	84	2232	1757	1.27	sym	2647	1697	1.56
Control	85	2217	2034	1.09	sym	2016	2057	0.98
Control	86	3055	2966	1.03	sym	2605	1598	1.63
Control	87	2004	347	5.77	asym	2182	428	5.1
Control	88	2371	1428	1.66	sym	3437	2546	1.35
Control	89	3373	2677	1.26	sym	3251	2852	1.14
Control	90	2221	726	3.06	asym	2282	443	5.15
Control	91	2170	2009	1.08	sym	3337	2670	1.25
Control	92	1837	827	2.22	asym	1958	434	4.51
Control	93	2228	2532	0.88	sym	1808	1102	1.64
Control	94	3474	2714	1.28	sym	2611	1729	1.51
Control	95	2129	2314	0.92	sym	2551	1646	1.55
Control	96	3327	1992	1.67	sym	3082	3279	0.94
Control	97	2465	1377	1.79	sym	1909	1689	1.13
Control	98	2562	2117	1.21	sym	3343	2786	1.2
Control	99	3204	2122	1.51	sym	3118	1890	1.65
Control	100	1851	1076	1.72	sym	2576	2094	1.23
Control	101	1811	1184	1.53	sym	3423	1860	1.84
Control	102	2415	1421	1.7	sym	3178	3417	0.93
Control	103	2309	415	5.57	asym	2864	1364	2.1
Control	104	2092	1268	1.65	sym	3047	3809	0.8
Control	105	2843	2843	1	sym	1993	1394	1.43
Control	106	1918	1031	1.86	sym	2364	1391	1.7
Control	107	2720	1766	1.54	sym	3359	3199	1.05
Control	108	2283	417	5.48	asym	3217	798	4.03
Control	109	1842	355	5.19	asym	2514	549	4.58
Control	110	3072	2104	1.46	sym	2786	1775	1.57
Control	111	2239	2035	1.1	sym	3131	1789	1.75
Control	112	2494	2900	0.86	sym	2183	2509	0.87
Control	113	2357	1708	1.38	sym	1914	1507	1.27
Control	114	2323	1249	1.86	sym	1800	1053	1.71
Control	115	3292	775	4.25	asym	3450	1468	2.35
Control	116	2826	933	3.03	asym	2842	561	5.07
Control	117	2552	2430	1.05	sym	2330	1302	1.79
Control	118	2040	1109	1.84	sym	2759	1735	1.59
Control	119	1967	1237	1.59	sym	2634	1722	1.53
Control	120	2077	1463	1.42	sym	2201	2317	0.95
Control	121	1872	1156	1.62	sym	2802	2547	1.1
Control	122	3149	1908	1.65	sym	2321	1469	1.58
Control	123	2998	3369	0.89	sym	1913	2391	0.8
Control	124	3311	3485	0.95	sym	3258	2450	1.33
Control	125	2690	2690	1	sym	2947	1926	1.53
Control	126	3162	2166	1.46	sym	2551	2384	1.07
Control	127	3176	3609	0.88	sym	3374	3628	0.93

Control	129	2658	1760	1.51	sym	1896	1003	1.89
Control	130	1810	1425	1.27	sym	3289	2610	1.26
Control	131	1925	1250	1.54	sym	2985	1843	1.62
Control	132	3451	1030	3.35	asym	2121	465	4.56
Control	133	3346	2040	1.64	sym	2266	1717	1.32
Control	134	3092	2103	1.47	sym	3065	3693	0.83
Control	135	3011	2214	1.36	sym	2301	1609	1.43
Control	136	2657	3201	0.83	sym	1881	1094	1.72
Control	137	3157	1716	1.84	sym	2871	1511	1.9
Control	138	2490	2895	0.86	sym	2319	2697	0.86
Control	139	2445	416	5.88	asym	2627	977	2.69
Control	140	2281	1531	1.49	sym	2806	2079	1.35
Control	141	1939	1657	1.17	sym	2972	2022	1.47
Control	142	3500	3070	1.14	sym	2809	2601	1.08
Control	143	2614	2355	1.11	sym	2058	1255	1.64
Control	144	2268	2291	0.99	sym	2820	2043	1.38
Control	145	2379	1359	1.75	sym	2196	1248	1.76
Control	146	3392	874	3.88	asym	2437	543	4.49
Control	147	2071	1479	1.4	sym	2944	1875	1.57
Control	148	2754	525	5.25	asym	3108	643	4.83
Control	149	2937	1971	1.49	sym	3056	2137	1.43
Control	150	2482	2533	0.98	sym	3312	1971	1.68
Control	151	2411	1000	2.41	asym	2008	854	2.35
Control	152	2880	2182	1.32	sym	2464	1799	1.37
Control	153	2681	1473	1.82	sym	2001	1493	1.34
Control	154	2190	1386	1.58	sym	3313	2629	1.26
Control	155	2261	2660	0.85	sym	2192	1231	1.78
Control	156	2246	2674	0.84	sym	3466	2280	1.52
Control	157	3087	1966	1.57	sym	2413	1499	1.61
Control	158	2081	1652	1.26	sym	3058	2066	1.48
Control	159	1960	2108	0.93	sym	2740	2045	1.34
Control	160	2895	1809	1.6	sym	2237	1216	1.84
Control	161	3156	1793	1.76	sym	2352	1976	1.19
Control	162	2900	767	3.78	asym	2584	695	3.72
Control	163	2399	453	5.3	asym	2050	468	4.38
Control	164	2595	1981	1.31	sym	2824	2742	1.03
Control	165	3178	1681	1.89	sym	2629	1919	1.37
Control	166	3273	837	3.91	asym	1955	483	4.05
Control	167	2719	564	4.82	asym	2751	542	5.08
Control	168	2746	1685	1.63	sym	3402	2062	1.65
Control	169	2203	2687	0.82	sym	1925	1766	1.09
Control	170	2413	925	2.61	asym	3165	989	3.2
Control	171	2697	1615	1.67	sym	2858	2071	1.38
Control	172	2143	1410	1.52	sym	2991	1719	1.74
Control	173	3491	2090	1.67	sym	2760	2442	1.13
Control	174	3107	1954	1.59	sym	2414	2215	1.09
Control	175	2848	1548	1.84	sym	2468	1505	1.64
Control	176	2229	1548	1.44	sym	2533	2911	0.87
Control	177	3129	3068	1.02	sym	2596	2570	1.01
Control	178	2709	1472	1.84	sym	3463	2644	1.31
Control	179	1801	963	1.87	sym	2628	1612	1.63
Control	180	3046	2649	1.15	sym	2151	1793	1.2
Control	181	1894	1540	1.23	sym	3063	3158	0.97
Control	182	2110	1327	1.59	sym	2384	1419	1.68
Control	183	2553	3039	0.84	sym	2466	2491	0.99
Control	184	2064	1876	1.1	sym	1875	1065	1.76
Control	185	3250	625	5.2	asym	1932	358	5.4
Control	186	2310	1400	1.65	sym	3264	2053	1.59
Control	187	2466	2202	1.12	sym	3159	2273	1.39
Control	188	2087	1122	1.86	sym	2877	1971	1.46
Control	189	1971	1760	1.12	sym	2938	1738	1.69
Control	190	3111	3660	0.85	sym	2403	1767	1.36
Control	191	3391	1916	1.77	sym	3090	2272	1.36
Control	192	2914	2143	1.36	sym	3183	2567	1.24

Control	194	2235	591	3.78	asym	3380	1496	2.26
Control	195	2282	1742	1.31	sym	2158	1910	1.13
Control	196	2361	1802	1.31	sym	2601	1723	1.51
Control	197	1905	355	5.36	asym	3497	1198	2.92
Control	198	3466	2729	1.27	sym	2123	1464	1.45
Control	199	2907	1680	1.73	sym	2203	1479	1.49
Control	200	2313	1217	1.9	sym	1836	1043	1.76
Control	201	2000	1370	1.46	sym	2518	2445	1.03
Control	202	3205	3815	0.84	sym	3301	2186	1.51
Control	203	2401	1356	1.77	sym	2922	3398	0.86
Control	204	1862	1648	1.13	sym	2611	1459	1.79
Control	205	3248	1775	1.83	sym	2684	3314	0.81
Control	206	3306	2486	1.33	sym	2671	1639	1.63
Control	207	3302	2172	1.52	sym	2639	1845	1.43
Control	208	2094	1360	1.54	sym	1990	1442	1.38
Control	209	2570	2073	1.24	sym	2408	1505	1.6
Control	210	2247	1235	1.82	sym	3200	2105	1.52
Control	211	1881	541	3.48	asym	2472	422	5.86
Control	212	3258	2143	1.52	sym	2906	2270	1.28
Control	213	1815	1911	0.95	sym	3497	2082	1.68
Control	214	2767	3416	0.81	sym	2547	2140	1.19
Control	215	2826	2298	1.23	sym	3209	2395	1.34
Control	216	3184	2527	1.26	sym	3204	1820	1.76
Control	217	2183	2373	0.92	sym	2183	1292	1.69
Control	218	2830	2177	1.3	sym	2848	2936	0.97
Control	219	2207	431	5.12	asym	2915	516	5.65
Control	220	1968	351	5.6	asym	2849	550	5.18
Control	221	2667	1551	1.72	sym	3224	1874	1.72
Control	222	2955	988	2.99	asym	3322	616	5.39
Control	223	2737	805	3.4	asym	2397	794	3.02
Control	224	2848	2637	1.08	sym	2754	3060	0.9
Control	225	3104	1222	2.54	asym	2636	938	2.81
Control	226	2749	2131	1.29	sym	3024	1855	1.63
Control	227	3206	2672	1.2	sym	2345	1484	1.58
Control	228	2673	1477	1.81	sym	2890	1806	1.6
Control	229	3473	2395	1.45	sym	1811	1522	1.19
Control	230	3318	1774	1.87	sym	2168	2258	0.96
Control	231	2298	2525	0.91	sym	3456	2638	1.31
Control	232	2073	680	3.05	asym	2353	582	4.04
Control	233	3291	1760	1.87	sym	2329	2377	0.98
Control	234	2349	876	2.68	asym	2264	1029	2.2
Control	235	3143	2475	1.27	sym	2133	1481	1.44
Control	236	1955	1157	1.69	sym	2476	1528	1.62
Control	237	1857	2293	0.81	sym	1922	1643	1.17
Control	238	1996	1188	1.68	sym	3436	3818	0.9
Control	239	1892	464	4.08	asym	2949	838	3.52
Control	240	3248	1418	2.29	asym	3446	1188	2.9
Control	241	2356	1280	1.84	sym	1940	1037	1.87
Control	242	3317	2154	1.54	sym	3217	3459	0.93
Control	243	1947	1316	1.48	sym	2290	2267	1.01
Control	244	2317	1566	1.48	sym	2809	2265	1.24
Control	245	3444	2050	1.68	sym	2221	2156	1.03
Control	246	1884	1346	1.4	sym	2585	1873	1.38
Control	247	1892	1287	1.47	sym	3119	2079	1.5
Control	248	2391	1449	1.65	sym	2394	1515	1.58
Control	249	2586	1944	1.33	sym	2553	2716	0.94
Control	250	3037	2712	1.12	sym	2547	1676	1.52
Control	251	2730	1950	1.4	sym	3374	3040	1.11
Control	252	2628	1918	1.37	sym	1929	1484	1.3
Control	253	3355	2084	1.61	sym	2562	1653	1.55
Control	254	2503	551	4.54	asym	3244	1495	2.17
Control	255	2539	530	4.79	asym	2620	630	4.16
Control	256	2493	523	4.77	asym	2461	776	3.17
Control	257	2513	2060	1.22	sym	2514	1381	1.82

Control	259	3360	2453	1.37	sym	3306	2066	1.6
Control	260	2222	1522	1.46	sym	3133	3481	0.9
Control	261	2329	1465	1.59	sym	2310	2139	1.08
Control	262	2658	3241	0.82	sym	3012	1814	1.66
Control	263	2864	1618	1.77	sym	1970	1728	1.14
Control	264	2269	2063	1.1	sym	2194	1995	1.1
Control	265	3007	3580	0.84	sym	2732	1598	1.71
Control	266	2761	2443	1.13	sym	2710	1426	1.9
Control	267	2349	1577	1.49	sym	3400	2446	1.39
Control	268	2802	3459	0.81	sym	3300	1988	1.66
Control	269	3352	1832	1.83	sym	2491	2265	1.1
Control	270	3302	557	5.93	asym	2319	562	4.13
Control	271	1944	1543	1.26	sym	2609	1491	1.75
Control	272	3245	3311	0.98	sym	2438	1340	1.82
Control	273	3498	1851	1.89	sym	1948	1233	1.58
Control	274	2847	1260	2.26	asym	2091	349	5.99
Control	275	3486	3521	0.99	sym	2894	2192	1.32
Control	276	1829	1005	1.82	sym	3413	2566	1.33
Control	277	2693	1557	1.73	sym	2860	1505	1.9
Control	278	2080	1496	1.39	sym	2718	1477	1.84
Control	279	2699	1753	1.54	sym	1860	1011	1.84
Control	280	3037	2025	1.5	sym	3413	4214	0.81
Control	281	2965	1666	1.78	sym	2721	1826	1.49
Control	282	1802	442	4.08	asym	2714	728	3.73
Control	283	2653	2551	1.04	sym	2941	2557	1.15
Control	284	3113	566	5.5	asym	3349	823	4.07
Control	285	2222	1255	1.77	sym	3327	1818	1.83
Control	286	2769	2472	1.12	sym	3156	1948	1.62
Control	287	2557	2459	1.04	sym	2465	2107	1.17
Control	288	2768	1896	1.46	sym	2461	1367	1.8
Control	289	1808	766	2.36	asym	2198	541	4.06
Control	290	2298	427	5.38	asym	1859	392	4.74
Control	291	3382	1780	1.9	sym	2679	1822	1.47
Control	292	3179	2890	1.1	sym	2256	1455	1.55
Control	293	2892	2158	1.34	sym	2551	2714	0.94
Control	294	1819	1051	1.73	sym	3214	2157	1.49
Control	295	2550	2576	0.99	sym	2303	1872	1.23
Control	296	2828	543	5.21	asym	2409	602	4
Control	297	2940	2450	1.2	sym	2381	1452	1.64
Control	298	3125	642	4.87	asym	2261	704	3.21
Control	299	3421	3082	1.11	sym	3222	1907	1.69
Control	300	2890	1184	2.44	asym	2708	865	3.13
Control	301	2555	1812	1.41	sym	2063	1273	1.62
Control	302	2823	1613	1.75	sym	2234	2327	0.96
Control	303	2109	1990	1.06	sym	2444	1852	1.32
Control	304	2296	1713	1.34	sym	3388	1802	1.88
Control	305	3123	645	4.84	asym	3201	606	5.28
Control	306	3304	1955	1.69	sym	2484	2700	0.92
Control	307	2153	2175	0.99	sym	2703	2112	1.28
Control	308	3355	3687	0.91	sym	1897	2180	0.87
Control	309	3038	1841	1.65	sym	2113	1993	1.06
Control	310	3051	3814	0.8	sym	1868	1906	0.98
Control	311	2305	1953	1.18	sym	3205	2041	1.57
Control	312	2712	1910	1.42	sym	3143	3175	0.99
Control	313	3119	2495	1.25	sym	2403	2379	1.01
Control	314	2335	2407	0.97	sym	2148	1534	1.4
Control	315	1998	342	5.84	asym	2379	493	4.83
Control	316	2903	2903	1	sym	3276	2100	1.56
Control	317	2619	1455	1.8	sym	3343	1868	1.79
Control	318	2486	1680	1.48	sym	1952	1276	1.53
Control	319	2101	1236	1.7	sym	2968	3451	0.86
Control	320	1964	1183	1.66	sym	2684	1459	1.84
Control	321	2506	1160	2.16	asym	2567	626	4.1
Control	322	2365	1739	1.36	sym	2171	2360	0.92

Control	324	1880	1649	1.14	sym	2748	1750	1.57
Control	325	2174	389	5.59	asym	2799	617	4.54
Control	326	3123	1805	1.73	sym	1827	2201	0.83
Control	327	2682	879	3.05	asym	2202	472	4.67
Control	328	2719	1618	1.68	sym	3249	2620	1.24
Control	329	3496	1942	1.8	sym	1928	1268	1.52
Control	330	2780	2989	0.93	sym	1935	1697	1.14
Control	331	3470	1130	3.07	asym	3496	695	5.03
Control	332	3395	3031	1.12	sym	2181	1628	1.34
Control	333	3027	3027	1	sym	3222	2369	1.36
Control	334	1874	1368	1.37	sym	2700	2842	0.95
Control	335	2929	2525	1.16	sym	3136	1659	1.89
Control	336	2779	1726	1.61	sym	3301	1844	1.79
Control	337	2053	1466	1.4	sym	2246	1664	1.35
Control	338	2922	2757	1.06	sym	2869	1603	1.79
Control	339	2236	1895	1.18	sym	1997	1637	1.22
Control	340	2681	1686	1.59	sym	1817	1101	1.65
Control	341	1970	1539	1.28	sym	2670	1475	1.81
Control	342	2616	3152	0.83	sym	3082	2828	1.09
Control	343	2995	2155	1.39	sym	1915	1189	1.61
Control	344	2700	1561	1.73	sym	2642	2841	0.93
Control	345	2942	2015	1.46	sym	2466	1417	1.74
Control	346	3010	1701	1.77	sym	2239	1309	1.71
Control	347	2093	2352	0.89	sym	2657	2739	0.97
Control	348	2598	1382	1.88	sym	2280	1281	1.78
Control	349	2559	2133	1.2	sym	2443	2143	1.14
Control	350	2006	1208	1.66	sym	2863	3253	0.88
Control	351	2897	2281	1.27	sym	3345	3758	0.89
Control	352	2734	1698	1.61	sym	2571	2857	0.9
Control	353	3238	3304	0.98	sym	1873	1171	1.6
Control	354	2758	3363	0.82	sym	2377	1415	1.68
Control	355	2191	1238	1.77	sym	3325	2681	1.24
Control	356	2746	655	4.19	asym	3494	826	4.23
Control	357	2428	554	4.38	asym	2953	542	5.45
Control	358	3449	2142	1.61	sym	1990	2052	0.97
Control	359	2172	1825	1.19	sym	3081	1802	1.71
Control	360	2420	1936	1.25	sym	3330	2108	1.58
Control	361	2018	1564	1.29	sym	3205	2671	1.2
Control	362	2184	2482	0.88	sym	2679	2435	1.1
Control	363	2633	1155	2.28	asym	3209	829	3.87
Control	364	3434	2056	1.67	sym	2322	1759	1.32
Control	365	2382	481	4.95	asym	2288	468	4.89
Control	366	2636	2995	0.88	sym	3381	1989	1.7
Control	367	1816	2215	0.82	sym	2286	1621	1.41
Control	368	3161	2359	1.34	sym	2315	1323	1.75
Control	369	2620	1871	1.4	sym	2394	1434	1.67
Control	370	2713	1821	1.49	sym	2868	2241	1.28
Control	371	3172	1792	1.77	sym	2696	1774	1.52
Control	372	2903	2962	0.98	sym	1981	1942	1.02
Control	373	2517	749	3.36	asym	2659	872	3.05
Control	374	2266	2490	0.91	sym	2403	1613	1.49
Control	375	2439	2279	1.07	sym	2588	1737	1.49
Control	376	3135	721	4.35	asym	1834	340	5.39
Control	377	3268	2971	1.1	sym	3186	1741	1.83
Control	378	2954	2503	1.18	sym	1862	2046	0.91
Control	379	2130	2477	0.86	sym	2611	1527	1.71
Control	380	1879	374	5.02	asym	2575	466	5.53
Control	381	2655	2682	0.99	sym	2711	1549	1.75
Control	382	2045	2045	1	sym	2889	1632	1.77
Control	383	3385	2170	1.56	sym	2403	1350	1.78
Control	384	3079	3755	0.82	sym	2199	1679	1.31
Control	385	2070	1203	1.72	sym	2053	1866	1.1
Control	386	3304	2310	1.43	sym	3413	2798	1.22
Control	387	2886	3436	0.84	sym	2669	1920	1.39

Control	389	2610	2175	1.2	sym	3178	2354	1.35
Control	390	1860	541	3.44	asym	2859	1311	2.18
Control	391	2044	1450	1.41	sym	2312	2046	1.13
Control	392	3481	1832	1.9	sym	3477	3104	1.12
Control	393	2512	2026	1.24	sym	3085	1763	1.75
Control	394	3429	2198	1.56	sym	3440	1988	1.73
Control	395	3369	2054	1.64	sym	2271	2083	1.09
Control	396	2236	2150	1.04	sym	2456	1847	1.33
Control	397	3151	3890	0.81	sym	2992	2168	1.38
Control	398	2508	1706	1.47	sym	2697	3330	0.81
Control	399	2846	2062	1.38	sym	3215	2923	1.1
Control	400	1968	1929	1.02	sym	2651	2574	1.03

Group	Pair cell No.	BrdU intensive value		Relative value	Pair cell type
		First cell	Second cell		
SOX9 KO	1	1941	376	5.16	asym
SOX9 KO	2	3117	1218	2.56	asym
SOX9 KO	3	2198	1316	1.67	sym
SOX9 KO	4	2856	1843	1.55	sym
SOX9 KO	5	3027	2481	1.22	sym
SOX9 KO	6	3437	2728	1.26	sym
SOX9 KO	7	3364	667	5.04	asym
SOX9 KO	8	3000	1389	2.16	asym
SOX9 KO	9	2377	940	2.53	asym
SOX9 KO	10	3076	1636	1.88	sym
SOX9 KO	11	2595	1663	1.56	sym
SOX9 KO	12	2974	1957	1.52	sym
SOX9 KO	13	2656	656	4.05	asym
SOX9 KO	14	1982	1802	1.1	sym
SOX9 KO	15	3328	616	5.4	asym
SOX9 KO	16	2958	1946	1.52	sym
SOX9 KO	17	1840	1219	1.51	sym
SOX9 KO	18	2617	579	4.52	asym
SOX9 KO	19	3222	3465	0.93	sym
SOX9 KO	20	2981	3205	0.93	sym
SOX9 KO	21	2327	573	4.06	asym
SOX9 KO	22	2957	1565	1.89	sym
SOX9 KO	23	3099	781	3.97	asym
SOX9 KO	24	3044	650	4.68	asym
SOX9 KO	25	2335	571	4.09	asym
SOX9 KO	26	2278	598	3.81	asym
SOX9 KO	27	3029	1383	2.19	asym
SOX9 KO	28	2712	779	3.48	asym
SOX9 KO	29	3252	705	4.61	asym
SOX9 KO	30	2003	371	5.4	asym
SOX9 KO	31	2415	2569	0.94	sym
SOX9 KO	32	2069	568	3.64	asym
SOX9 KO	33	2689	594	4.53	asym
SOX9 KO	34	3464	1462	2.37	asym
SOX9 KO	35	2678	847	3.16	asym
SOX9 KO	36	2078	1201	1.73	sym
SOX9 KO	37	2308	485	4.76	asym
SOX9 KO	38	3328	2706	1.23	sym
SOX9 KO	39	3167	583	5.43	asym
SOX9 KO	40	2172	481	4.52	asym
SOX9 KO	41	3012	578	5.21	asym
SOX9 KO	42	3150	625	5.04	asym
SOX9 KO	43	2587	775	3.34	asym
SOX9 KO	44	3248	2017	1.61	sym
SOX9 KO	45	2474	453	5.46	asym
SOX9 KO	46	2617	1407	1.86	sym
SOX9 KO	47	2821	504	5.6	asym
SOX9 KO	48	3245	1330	2.44	asym
SOX9 KO	49	2146	848	2.53	asym
SOX9 KO	50	3366	651	5.17	asym
SOX9 KO	51	2200	2366	0.93	sym
SOX9 KO	52	2470	1395	1.77	sym
SOX9 KO	53	3032	2263	1.34	sym
SOX9 KO	54	2516	1966	1.28	sym
SOX9 KO	55	2788	1991	1.4	sym
SOX9 KO	56	3358	3462	0.97	sym

SOX9 KO	58	2588	508	5.09	asym
SOX9 KO	59	2131	451	4.72	asym
SOX9 KO	60	2148	585	3.67	asym
SOX9 KO	61	3092	1137	2.72	asym
SOX9 KO	62	2350	1478	1.59	sym
SOX9 KO	63	2188	629	3.48	asym
SOX9 KO	64	2198	2290	0.96	sym
SOX9 KO	65	1948	858	2.27	asym
SOX9 KO	66	2178	1259	1.73	sym
SOX9 KO	67	3322	2013	1.65	sym
SOX9 KO	68	2782	580	4.8	asym
SOX9 KO	69	2281	715	3.19	asym
SOX9 KO	70	3481	808	4.31	asym
SOX9 KO	71	2587	652	3.97	asym
SOX9 KO	72	2429	2270	1.07	sym
SOX9 KO	73	2556	779	3.28	asym
SOX9 KO	74	2889	1670	1.73	sym
SOX9 KO	75	1988	1274	1.56	sym
SOX9 KO	76	2660	1478	1.8	sym
SOX9 KO	77	2709	1894	1.43	sym
SOX9 KO	78	2260	816	2.77	asym
SOX9 KO	79	3170	1093	2.9	asym
SOX9 KO	80	2625	629	4.17	asym
SOX9 KO	81	1825	2028	0.9	sym
SOX9 KO	82	3183	784	4.06	asym
SOX9 KO	83	3488	1373	2.54	asym
SOX9 KO	84	3245	613	5.29	asym
SOX9 KO	85	1992	806	2.47	asym
SOX9 KO	86	2874	762	3.77	asym
SOX9 KO	87	1803	1431	1.26	sym
SOX9 KO	88	3007	1166	2.58	asym
SOX9 KO	89	3097	704	4.4	asym
SOX9 KO	90	2250	1184	1.9	sym
SOX9 KO	91	3361	2141	1.57	sym
SOX9 KO	92	2940	2854	1.03	sym
SOX9 KO	93	2430	445	5.46	asym
SOX9 KO	94	3225	574	5.62	asym
SOX9 KO	95	3155	643	4.91	asym
SOX9 KO	96	2182	669	3.26	asym
SOX9 KO	97	3122	745	4.19	asym
SOX9 KO	98	2553	468	5.46	asym
SOX9 KO	99	3146	1392	2.26	asym
SOX9 KO	100	2782	1572	1.77	sym
SOX9 KO	101	3083	554	5.56	asym
SOX9 KO	102	2208	1920	1.15	sym
SOX9 KO	103	3225	1812	1.78	sym
SOX9 KO	104	2054	382	5.38	asym
SOX9 KO	105	2517	760	3.31	asym
SOX9 KO	106	2509	839	2.99	asym
SOX9 KO	107	2495	2572	0.97	sym
SOX9 KO	108	3122	3673	0.85	sym
SOX9 KO	109	2963	2622	1.13	sym
SOX9 KO	110	2065	383	5.39	asym
SOX9 KO	111	2115	480	4.41	asym
SOX9 KO	112	2600	720	3.61	asym
SOX9 KO	113	3425	730	4.69	asym
SOX9 KO	114	2410	1435	1.68	sym
SOX9 KO	115	1972	1210	1.63	sym

SOX9 KO	117	1826	321	5.68	asym
SOX9 KO	118	1975	1110	1.78	sym
SOX9 KO	119	2049	479	4.28	asym
SOX9 KO	120	2582	1555	1.66	sym
SOX9 KO	121	3043	1602	1.9	sym
SOX9 KO	122	2090	391	5.35	asym
SOX9 KO	123	2501	451	5.55	asym
SOX9 KO	124	2207	968	2.28	asym
SOX9 KO	125	1834	413	4.44	asym
SOX9 KO	126	2770	772	3.59	asym
SOX9 KO	127	2904	955	3.04	asym
SOX9 KO	128	3198	2479	1.29	sym
SOX9 KO	129	3239	897	3.61	asym
SOX9 KO	130	3166	2261	1.4	sym
SOX9 KO	131	2372	866	2.74	asym
SOX9 KO	132	3019	2340	1.29	sym
SOX9 KO	133	2794	2636	1.06	sym
SOX9 KO	134	3182	642	4.96	asym
SOX9 KO	135	2791	771	3.62	asym
SOX9 KO	136	2353	550	4.28	asym
SOX9 KO	137	2451	494	4.96	asym
SOX9 KO	138	2556	833	3.07	asym
SOX9 KO	139	2323	1873	1.24	sym
SOX9 KO	140	2563	443	5.78	asym
SOX9 KO	141	2046	377	5.43	asym
SOX9 KO	142	2284	2217	1.03	sym
SOX9 KO	143	2705	998	2.71	asym
SOX9 KO	144	3414	864	3.95	asym
SOX9 KO	145	2073	587	3.53	asym
SOX9 KO	146	2395	2158	1.11	sym
SOX9 KO	147	2984	3209	0.93	sym
SOX9 KO	148	1939	1310	1.48	sym
SOX9 KO	149	2280	1281	1.78	sym
SOX9 KO	150	2617	622	4.21	asym
SOX9 KO	151	2307	1775	1.3	sym
SOX9 KO	152	3424	667	5.13	asym
SOX9 KO	153	3321	3047	1.09	sym
SOX9 KO	154	3380	1910	1.77	sym
SOX9 KO	155	2280	473	4.82	asym
SOX9 KO	156	2628	672	3.91	asym
SOX9 KO	157	3084	1928	1.6	sym
SOX9 KO	158	2378	513	4.64	asym
SOX9 KO	159	3311	1254	2.64	asym
SOX9 KO	160	3063	649	4.72	asym
SOX9 KO	161	2565	463	5.54	asym
SOX9 KO	162	1819	989	1.84	sym
SOX9 KO	163	3303	3270	1.01	sym
SOX9 KO	164	3354	1114	3.01	asym
SOX9 KO	165	2984	1018	2.93	asym
SOX9 KO	166	2136	2373	0.9	sym
SOX9 KO	167	3340	2715	1.23	sym
SOX9 KO	168	2383	407	5.86	asym
SOX9 KO	169	2169	540	4.02	asym
SOX9 KO	170	2086	2426	0.86	sym
SOX9 KO	171	2555	574	4.45	asym
SOX9 KO	172	2315	429	5.39	asym
SOX9 KO	173	3319	1424	2.33	asym
SOX9 KO	174	3186	3319	0.96	sym

SOX9 KO	176	2876	667	4.31	asym
SOX9 KO	177	3409	1904	1.79	sym
SOX9 KO	178	2583	873	2.96	asym
SOX9 KO	179	1968	663	2.97	asym
SOX9 KO	180	2043	625	3.27	asym
SOX9 KO	181	2353	474	4.96	asym
SOX9 KO	182	3293	1444	2.28	asym
SOX9 KO	183	2115	2299	0.92	sym
SOX9 KO	184	3383	1151	2.94	asym
SOX9 KO	185	1802	1201	1.5	sym
SOX9 KO	186	2499	980	2.55	asym
SOX9 KO	187	3493	587	5.95	asym
SOX9 KO	188	3285	2119	1.55	sym
SOX9 KO	189	2023	472	4.29	asym
SOX9 KO	190	2566	470	5.46	asym
SOX9 KO	191	2757	691	3.99	asym
SOX9 KO	192	2024	830	2.44	asym
SOX9 KO	193	2739	473	5.79	asym
SOX9 KO	194	2812	2083	1.35	sym
SOX9 KO	195	3363	2014	1.67	sym
SOX9 KO	196	3340	1290	2.59	asym
SOX9 KO	197	2536	2438	1.04	sym
SOX9 KO	198	1962	352	5.58	asym
SOX9 KO	199	3459	3391	1.02	sym
SOX9 KO	200	2612	665	3.93	asym
SOX9 KO	201	2318	453	5.12	asym
SOX9 KO	202	3045	793	3.84	asym
SOX9 KO	203	3156	2238	1.41	sym
SOX9 KO	204	3062	619	4.95	asym
SOX9 KO	205	3477	726	4.79	asym
SOX9 KO	206	3123	594	5.26	asym
SOX9 KO	207	1847	2030	0.91	sym
SOX9 KO	208	2541	761	3.34	asym
SOX9 KO	209	2389	438	5.46	asym
SOX9 KO	210	3397	1297	2.62	asym
SOX9 KO	211	1826	1373	1.33	sym
SOX9 KO	212	2087	614	3.4	asym
SOX9 KO	213	1804	449	4.02	asym
SOX9 KO	214	2913	573	5.08	asym
SOX9 KO	215	2781	1225	2.27	asym
SOX9 KO	216	2692	1276	2.11	asym
SOX9 KO	217	3484	723	4.82	asym
SOX9 KO	218	3426	632	5.42	asym
SOX9 KO	219	1905	1305	1.46	sym
SOX9 KO	220	3080	1890	1.63	sym
SOX9 KO	221	2794	670	4.17	asym
SOX9 KO	222	2771	2235	1.24	sym
SOX9 KO	223	3432	1816	1.89	sym
SOX9 KO	224	2976	783	3.8	asym
SOX9 KO	225	2107	2479	0.85	sym
SOX9 KO	226	2966	610	4.86	asym
SOX9 KO	227	1889	583	3.24	asym
SOX9 KO	228	2656	539	4.93	asym
SOX9 KO	229	3230	571	5.66	asym
SOX9 KO	230	3311	883	3.75	asym
SOX9 KO	231	2719	479	5.68	asym
SOX9 KO	232	2953	3434	0.86	sym
SOX9 KO	233	2578	2604	0.99	sym

SOX9 KO	235	2897	705	4.11	asym
SOX9 KO	236	3335	929	3.59	asym
SOX9 KO	237	3274	895	3.66	asym
SOX9 KO	238	3070	645	4.76	asym
SOX9 KO	239	2238	2487	0.9	sym
SOX9 KO	240	2399	1904	1.26	sym
SOX9 KO	241	2191	456	4.8	asym
SOX9 KO	242	1837	371	4.95	asym
SOX9 KO	243	2490	669	3.72	asym
SOX9 KO	244	2176	651	3.34	asym
SOX9 KO	245	2262	2308	0.98	sym
SOX9 KO	246	2616	767	3.41	asym
SOX9 KO	247	2841	514	5.53	asym
SOX9 KO	248	1959	723	2.71	asym
SOX9 KO	249	2411	709	3.4	asym
SOX9 KO	250	2577	880	2.93	asym
SOX9 KO	251	3263	2161	1.51	sym
SOX9 KO	252	2210	2105	1.05	sym
SOX9 KO	253	2984	1421	2.1	asym
SOX9 KO	254	3319	2423	1.37	sym
SOX9 KO	255	3338	2211	1.51	sym
SOX9 KO	256	3344	3278	1.02	sym
SOX9 KO	257	3057	815	3.75	asym
SOX9 KO	258	3352	2841	1.18	sym
SOX9 KO	259	2795	541	5.17	asym
SOX9 KO	260	2457	1718	1.43	sym
SOX9 KO	261	2302	460	5	asym
SOX9 KO	262	2582	1528	1.69	sym
SOX9 KO	263	2460	687	3.58	asym
SOX9 KO	264	3440	953	3.61	asym
SOX9 KO	265	3411	927	3.68	asym
SOX9 KO	266	2563	520	4.93	asym
SOX9 KO	267	2009	337	5.96	asym
SOX9 KO	268	2532	917	2.76	asym
SOX9 KO	269	2872	748	3.84	asym
SOX9 KO	270	2817	2584	1.09	sym
SOX9 KO	271	3114	2133	1.46	sym
SOX9 KO	272	1946	597	3.26	asym
SOX9 KO	273	2905	1210	2.4	asym
SOX9 KO	274	2675	1884	1.42	sym
SOX9 KO	275	1809	521	3.47	asym
SOX9 KO	276	2018	1614	1.25	sym
SOX9 KO	277	1834	385	4.76	asym
SOX9 KO	278	2434	406	6	asym
SOX9 KO	279	2390	885	2.7	asym
SOX9 KO	280	2827	1234	2.29	asym
SOX9 KO	281	2890	737	3.92	asym
SOX9 KO	282	2614	1502	1.74	sym
SOX9 KO	283	2595	505	5.14	asym
SOX9 KO	284	3007	3456	0.87	sym
SOX9 KO	285	2788	1532	1.82	sym
SOX9 KO	286	2862	984	2.91	asym
SOX9 KO	287	2478	2193	1.13	sym
SOX9 KO	288	2464	523	4.71	asym
SOX9 KO	289	1999	1058	1.89	sym
SOX9 KO	290	2352	2283	1.03	sym
SOX9 KO	291	1829	553	3.31	asym
SOX9 KO	292	1973	415	4.75	asym

SOX9 KO	294	2252	1272	1.77	sym
SOX9 KO	295	2082	352	5.91	asym
SOX9 KO	296	2352	1600	1.47	sym
SOX9 KO	297	2326	541	4.3	asym
SOX9 KO	298	2670	1534	1.74	sym
SOX9 KO	299	2928	1042	2.81	asym
SOX9 KO	300	2340	1671	1.4	sym
SOX9 KO	301	1824	577	3.16	asym
SOX9 KO	302	3000	1695	1.77	sym
SOX9 KO	303	3144	603	5.21	asym
SOX9 KO	304	2219	1734	1.28	sym
SOX9 KO	305	3206	1762	1.82	sym
SOX9 KO	306	2584	1420	1.82	sym
SOX9 KO	307	2658	1146	2.32	asym
SOX9 KO	308	3185	900	3.54	asym
SOX9 KO	309	2386	757	3.15	asym
SOX9 KO	310	2088	782	2.67	asym
SOX9 KO	311	2820	678	4.16	asym
SOX9 KO	312	2250	2446	0.92	sym
SOX9 KO	313	2646	928	2.85	asym
SOX9 KO	314	2931	3186	0.92	sym
SOX9 KO	315	2514	1822	1.38	sym
SOX9 KO	316	1946	591	3.29	asym
SOX9 KO	317	3120	997	3.13	asym
SOX9 KO	318	2581	1067	2.42	asym
SOX9 KO	319	1865	313	5.95	asym
SOX9 KO	320	3482	4299	0.81	sym
SOX9 KO	321	2760	2680	1.03	sym
SOX9 KO	322	3083	1803	1.71	sym
SOX9 KO	323	2045	1182	1.73	sym
SOX9 KO	324	3250	550	5.91	asym
SOX9 KO	325	2397	1324	1.81	sym
SOX9 KO	326	2953	3558	0.83	sym
SOX9 KO	327	2467	2741	0.9	sym
SOX9 KO	328	2360	499	4.73	asym
SOX9 KO	329	2719	804	3.38	asym
SOX9 KO	330	2823	604	4.67	asym
SOX9 KO	331	2962	1851	1.6	sym
SOX9 KO	332	3425	1134	3.02	asym
SOX9 KO	333	2627	973	2.7	asym
SOX9 KO	334	2443	456	5.36	asym
SOX9 KO	335	2656	2887	0.92	sym
SOX9 KO	336	2385	587	4.06	asym
SOX9 KO	337	2832	818	3.46	asym
SOX9 KO	338	2530	616	4.11	asym
SOX9 KO	339	3192	551	5.79	asym
SOX9 KO	340	2580	472	5.47	asym
SOX9 KO	341	2499	692	3.61	asym
SOX9 KO	342	2393	716	3.34	asym
SOX9 KO	343	2411	419	5.75	asym
SOX9 KO	344	1861	513	3.63	asym
SOX9 KO	345	2874	2933	0.98	sym
SOX9 KO	346	1848	703	2.63	asym
SOX9 KO	347	3376	1542	2.19	asym
SOX9 KO	348	2078	1453	1.43	sym
SOX9 KO	349	3495	1392	2.51	asym
SOX9 KO	350	3294	629	5.24	asym
SOX9 KO	351	2832	617	4.59	asym

SOX9 KO	353	3254	625	5.21	asym
SOX9 KO	354	3388	1122	3.02	asym
SOX9 KO	355	2676	1037	2.58	asym
SOX9 KO	356	3116	3085	1.01	sym
SOX9 KO	357	2121	1657	1.28	sym
SOX9 KO	358	2331	416	5.6	asym
SOX9 KO	359	3044	2057	1.48	sym
SOX9 KO	360	2848	2094	1.36	sym
SOX9 KO	361	2972	1304	2.28	asym
SOX9 KO	362	2271	1018	2.23	asym
SOX9 KO	363	2831	1838	1.54	sym
SOX9 KO	364	2933	937	3.13	asym
SOX9 KO	365	3112	2394	1.3	sym
SOX9 KO	366	3103	593	5.23	asym
SOX9 KO	367	1956	374	5.23	asym
SOX9 KO	368	3319	899	3.69	asym
SOX9 KO	369	2135	450	4.74	asym
SOX9 KO	370	3006	1405	2.14	asym
SOX9 KO	371	3174	1463	2.17	asym
SOX9 KO	372	3177	596	5.33	asym
SOX9 KO	373	3095	2496	1.24	sym
SOX9 KO	374	2614	1665	1.57	sym
SOX9 KO	375	2021	548	3.69	asym
SOX9 KO	376	2296	2417	0.95	sym
SOX9 KO	377	2017	516	3.91	asym
SOX9 KO	378	1840	462	3.98	asym
SOX9 KO	379	2939	2070	1.42	sym
SOX9 KO	380	1865	1793	1.04	sym
SOX9 KO	381	3407	1163	2.93	asym
SOX9 KO	382	3283	767	4.28	asym
SOX9 KO	383	2935	578	5.08	asym
SOX9 KO	384	3084	921	3.35	asym
SOX9 KO	385	2492	1051	2.37	asym
SOX9 KO	386	3264	1070	3.05	asym
SOX9 KO	387	2953	779	3.79	asym
SOX9 KO	388	2127	837	2.54	asym
SOX9 KO	389	3177	1381	2.3	asym
SOX9 KO	390	2596	2128	1.22	sym
SOX9 KO	391	2466	1409	1.75	sym
SOX9 KO	392	2559	666	3.84	asym
SOX9 KO	393	2557	649	3.94	asym
SOX9 KO	394	3444	2629	1.31	sym
SOX9 KO	395	2372	704	3.37	asym
SOX9 KO	396	2090	425	4.92	asym
SOX9 KO	397	1968	781	2.52	asym
SOX9 KO	398	3310	1235	2.68	asym
SOX9 KO	399	2739	592	4.63	asym
SOX9 KO	400	2928	635	4.61	asym

Group	Pair cell No.	BrdU intensive value		Relative value	Pair cell type	SOX9 intensive value		Relative value
		First cell	Second ce			First cell	Second cell	
Control	1	2353	1612	1.46	Sym	2719	2324	1.17
Control	2	2401	2001	1.2	Sym	2640	2336	1.13
Control	3	3044	2647	1.15	Sym	2201	2246	0.98
Control	4	2927	2957	0.99	Sym	2867	2515	1.14
Control	5	2431	1491	1.63	Sym	3094	2022	1.53
Control	6	3367	1772	1.9	Sym	2691	2170	1.24
Control	7	1812	1294	1.4	Sym	2806	2528	1.11
Control	8	1838	715	2.57	Asym	3142	752	4.18
Control	9	2680	2945	0.91	Sym	2597	1982	1.31
Control	10	2566	1677	1.53	Sym	2536	1679	1.51
Control	11	3198	1738	1.84	Sym	2406	2934	0.82
Control	12	2970	3713	0.8	Sym	2844	2046	1.39
Control	13	3242	2679	1.21	Sym	2653	2434	1.09
Control	14	3390	2371	1.43	Sym	3376	1845	1.83
Control	15	1981	1193	1.66	Sym	3444	4305	0.8
Control	16	2726	1482	1.84	Sym	2810	2958	0.95
Control	17	2435	1571	1.55	Sym	2787	1991	1.4
Control	18	2369	1316	1.8	Sym	2863	1564	1.83
Control	19	2731	2375	1.15	Sym	2249	1190	1.89
Control	20	3315	1873	1.77	Sym	2244	1753	1.28
Control	21	2076	2163	0.96	Sym	2145	1262	1.7
Control	22	2051	1455	1.41	Sym	2283	1297	1.76
Control	23	3095	2537	1.22	Sym	3135	1912	1.64
Control	24	2831	1792	1.58	Sym	3101	2542	1.22
Control	25	2214	1785	1.24	Sym	3491	2182	1.6
Control	26	3237	1927	1.68	Sym	1875	1689	1.11
Control	27	3236	3596	0.9	Sym	2362	2339	1.01
Control	28	3030	1906	1.59	Sym	3373	2499	1.35
Control	29	3475	905	3.84	Asym	2754	615	4.48
Control	30	2744	1499	1.83	Sym	2772	1860	1.49
Control	31	1838	2020	0.91	Sym	2920	2835	1.03
Control	32	3112	2964	1.05	Sym	2371	2549	0.93
Control	33	3358	2224	1.51	Sym	1840	1373	1.34
Control	34	2343	2169	1.08	Sym	3324	2557	1.3
Control	35	2087	1569	1.33	Sym	2598	2986	0.87
Control	36	3127	558	5.6	Asym	2324	551	4.22
Control	37	2975	2220	1.34	Sym	2810	1735	1.62
Control	38	2157	1299	1.66	Sym	3351	2311	1.45
Control	39	2987	2531	1.18	Sym	1902	1132	1.68
Control	40	2377	1415	1.68	Sym	2179	1305	1.67
Control	41	3266	2384	1.37	Sym	2185	2121	1.03
Control	42	2987	2371	1.26	Sym	2107	1453	1.45
Control	43	2480	835	2.97	Asym	2375	910	2.61
Control	44	2796	1955	1.43	Sym	2302	1525	1.51
Control	45	2000	1087	1.84	Sym	2929	2306	1.27
Control	46	2782	2484	1.12	Sym	2199	1222	1.8
Control	47	3486	1606	2.17	Asym	3261	553	5.9
Control	48	2960	3654	0.81	Sym	3193	2514	1.27
Control	49	2633	1936	1.36	Sym	3024	1800	1.68
Control	50	3210	3087	1.04	Sym	2884	1696	1.7
Control	51	1943	1092	1.78	Sym	3269	3892	0.84
Control	52	2919	2178	1.34	Sym	3297	2867	1.15
Control	53	2827	3365	0.84	Sym	2212	1475	1.5
Control	54	2086	1783	1.17	Sym	3272	1818	1.8
Control	55	2814	2513	1.12	Sym	2010	1129	1.78
Control	56	1998	1537	1.3	Sym	2230	1604	1.39
Control	57	2585	1225	2.11	Asym	3015	779	3.87
Control	58	2071	1113	1.86	Sym	2288	1476	1.55
Control	59	2020	2149	0.94	Sym	2841	3423	0.83
Control	60	3168	2296	1.38	Sym	3472	2846	1.22
Control	61	2334	2141	1.09	Sym	3227	2582	1.25

Control	63	3288	1858	1.77	Sym	2075	1621	1.28
Control	64	3314	1973	1.68	Sym	2786	2211	1.26
Control	65	2810	2782	1.01	Sym	2193	1443	1.52
Control	66	3480	3446	1.01	Sym	2506	2914	0.86
Control	67	2115	1365	1.55	Sym	3345	3279	1.02
Control	68	1971	1101	1.79	Sym	3262	2399	1.36
Control	69	2099	2120	0.99	Sym	2382	1778	1.34
Control	70	3180	3495	0.91	Sym	3302	2428	1.36
Control	71	2746	1560	1.76	Sym	2513	1351	1.86
Control	72	2536	1335	1.9	Sym	3262	1763	1.85
Control	73	2008	2308	0.87	Sym	2077	1423	1.46
Control	74	3283	2379	1.38	Sym	2875	1691	1.7
Control	75	2211	2513	0.88	Sym	2741	2061	1.33
Control	76	1909	1171	1.63	Sym	3341	2856	1.17
Control	77	3413	1886	1.81	Sym	2065	1167	1.77
Control	78	3138	3692	0.85	Sym	3359	2999	1.12
Control	79	2280	1253	1.82	Sym	3443	2918	1.18
Control	80	2430	2189	1.11	Sym	1919	1060	1.81
Control	81	2849	2175	1.31	Sym	2625	3241	0.81
Control	82	2680	2291	1.17	Sym	3033	1872	1.62
Control	83	2779	2550	1.09	Sym	3436	2322	1.48
Control	84	3409	1833	1.86	Sym	2288	1278	1.79
Control	85	3408	1623	2.1	Asym	3406	860	3.96
Control	86	2415	2464	0.98	Sym	2101	2040	1.03
Control	87	1910	1201	1.59	Sym	2224	1417	1.57
Control	88	2614	1828	1.43	Sym	3359	3691	0.91
Control	89	2252	1958	1.15	Sym	2770	1699	1.63
Control	90	2526	1844	1.37	Sym	2142	1170	1.83
Control	91	2685	2050	1.31	Sym	3115	2148	1.45
Control	92	2678	1695	1.58	Sym	2869	1668	1.72
Control	93	3009	575	5.23	Asym	2735	800	3.42
Control	94	1842	2093	0.88	Sym	2451	2380	1.03
Control	95	2278	1381	1.65	Sym	2741	2538	1.08
Control	96	2722	1479	1.84	Sym	2919	2146	1.36
Control	97	1937	1729	1.12	Sym	2576	1684	1.53
Control	98	2356	1530	1.54	Sym	3032	2506	1.21
Control	99	2778	3347	0.83	Sym	2805	1508	1.86
Control	100	2160	1543	1.4	Sym	2742	3264	0.84
Control	101	1847	1240	1.49	Sym	2088	1755	1.19
Control	102	2453	1348	1.82	Sym	2211	1755	1.26
Control	103	3095	2920	1.06	Sym	3435	2290	1.5
Control	104	2487	1625	1.53	Sym	1981	1753	1.13
Control	105	2024	1425	1.42	Sym	3479	3550	0.98
Control	106	2380	2288	1.04	Sym	3399	2428	1.4
Control	107	2830	1675	1.69	Sym	2582	2002	1.29
Control	108	2478	2555	0.97	Sym	2508	2200	1.14
Control	109	1990	1496	1.33	Sym	2887	2468	1.17
Control	110	2286	1772	1.29	Sym	3403	2521	1.35
Control	111	2307	1398	1.65	Sym	3186	3705	0.86
Control	112	1890	384	4.92	Asym	2228	860	2.59
Control	113	2569	1538	1.67	Sym	3483	3255	1.07
Control	114	2418	3023	0.8	Sym	2670	2495	1.07
Control	115	2983	522	5.72	Asym	1887	773	2.44
Control	116	2526	2255	1.12	Sym	2611	2440	1.07
Control	117	3296	2424	1.36	Sym	2072	1248	1.66
Control	118	3018	1786	1.69	Sym	3163	2396	1.32
Control	119	2859	1906	1.5	Sym	2907	1690	1.72
Control	120	2964	2334	1.27	Sym	3269	2123	1.54
Control	121	3280	1072	3.06	Asym	1930	835	2.31
Control	122	3127	2044	1.53	Sym	2355	2264	1.04
Control	123	2553	1737	1.47	Sym	2704	1779	1.52
Control	124	3491	2530	1.38	Sym	2141	1508	1.42
Control	125	3311	2207	1.5	Sym	2853	2692	1.06

Control	127	2999	2026	1.48	Sym	1860	1301	1.43
Control	128	2075	1206	1.72	Sym	1883	1029	1.83
Control	129	3074	3074	1	Sym	2844	2031	1.4
Control	130	2914	3598	0.81	Sym	2717	2245	1.21
Control	131	2491	1730	1.44	Sym	2768	1797	1.54
Control	132	2972	1718	1.73	Sym	2635	1432	1.84
Control	133	2530	1524	1.66	Sym	2814	1914	1.47
Control	134	2269	1036	2.19	Asym	2237	407	5.49
Control	135	3240	2893	1.12	Sym	3304	2104	1.57
Control	136	2639	1660	1.59	Sym	1876	1226	1.53
Control	137	2436	3045	0.8	Sym	2870	1840	1.56
Control	138	2470	2352	1.05	Sym	2951	1844	1.6
Control	139	2978	1731	1.72	Sym	1936	2225	0.87
Control	140	2295	1897	1.21	Sym	3019	2270	1.33
Control	141	2066	458	4.51	Asym	2167	496	4.37
Control	142	2937	2128	1.38	Sym	2998	1675	1.79
Control	143	2952	2079	1.42	Sym	2392	1945	1.23
Control	144	1863	1122	1.66	Sym	2786	2322	1.2
Control	145	2254	1288	1.75	Sym	3067	1893	1.62
Control	146	2919	3355	0.87	Sym	2015	1334	1.51
Control	147	2093	1661	1.26	Sym	3334	1783	1.87
Control	148	1865	499	3.74	Asym	2607	605	4.31
Control	149	2104	664	3.17	Asym	1821	788	2.31
Control	150	2341	1245	1.88	Sym	2999	2479	1.21
Control	151	2081	1239	1.68	Sym	3392	2950	1.15
Control	152	2096	1497	1.4	Sym	2935	2575	1.14
Control	153	2172	1448	1.5	Sym	1864	1381	1.35
Control	154	2774	1541	1.8	Sym	2093	1464	1.43
Control	155	3018	2902	1.04	Sym	2165	2102	1.03
Control	156	2797	547	5.11	Asym	2077	366	5.67
Control	157	2145	1459	1.47	Sym	2988	2197	1.36
Control	158	3167	2661	1.19	Sym	3196	2103	1.52
Control	159	2595	2852	0.91	Sym	2269	1343	1.69
Control	160	3114	3210	0.97	Sym	2374	1785	1.33
Control	161	2301	385	5.97	Asym	2224	478	4.65
Control	162	3463	2025	1.71	Sym	2145	1625	1.32
Control	163	2701	2728	0.99	Sym	1840	1533	1.2
Control	164	1947	2140	0.91	Sym	2875	2162	1.33
Control	165	1892	1205	1.57	Sym	3438	1868	1.84
Control	166	2528	520	4.86	Asym	2307	1012	2.28
Control	167	1888	1187	1.59	Sym	2221	2243	0.99
Control	168	3392	593	5.72	Asym	3463	726	4.77
Control	169	2017	1868	1.08	Sym	3277	4096	0.8
Control	170	3224	1990	1.62	Sym	3396	2479	1.37
Control	171	2144	1499	1.43	Sym	3073	1617	1.9
Control	172	2532	2845	0.89	Sym	3053	2063	1.48
Control	173	2591	1851	1.4	Sym	3357	3730	0.9
Control	174	2612	2353	1.11	Sym	3343	2857	1.17
Control	175	2454	3068	0.8	Sym	3276	1733	1.89
Control	176	2894	1654	1.75	Sym	3047	2673	1.14
Control	177	2252	2066	1.09	Sym	3350	3350	1
Control	178	3305	3592	0.92	Sym	2978	1959	1.52
Control	179	1814	1148	1.58	Sym	2017	1293	1.56
Control	180	2272	2443	0.93	Sym	3303	3670	0.9
Control	181	2448	1375	1.78	Sym	2619	1912	1.37
Control	182	2555	1558	1.64	Sym	3125	2003	1.56
Control	183	2069	1989	1.04	Sym	3096	3870	0.8
Control	184	3045	1603	1.9	Sym	2640	3220	0.82
Control	185	3307	669	4.94	Asym	2140	375	5.7
Control	186	2177	1146	1.9	Sym	2655	2918	0.91
Control	187	2018	1140	1.77	Sym	2707	1829	1.48
Control	188	3120	3152	0.99	Sym	2730	1706	1.6
Control	189	3286	3190	1.03	Sym	2792	2609	1.07

Control	191	3181	2790	1.14	Sym	2201	2269	0.97
Control	192	2180	1703	1.28	Sym	2342	1473	1.59
Control	193	2892	1643	1.76	Sym	3344	2171	1.54
Control	194	3276	2100	1.56	Sym	2518	1368	1.84
Control	195	2909	2020	1.44	Sym	2546	1819	1.4
Control	196	2360	1439	1.64	Sym	1831	1606	1.14
Control	197	1859	2187	0.85	Sym	1987	1565	1.27
Control	198	1895	1620	1.17	Sym	2239	1736	1.29
Control	199	2140	1621	1.32	Sym	3491	3232	1.08
Control	200	2668	1827	1.46	Sym	3038	2250	1.35
Control	201	2190	1281	1.71	Sym	2497	1734	1.44
Control	202	2520	1615	1.56	Sym	2676	2212	1.21
Control	203	2200	1507	1.46	Sym	3091	2944	1.05
Control	204	3397	2376	1.43	Sym	2641	2001	1.32
Control	205	2938	2084	1.41	Sym	2035	1204	1.69
Control	206	3022	2798	1.08	Sym	2285	1904	1.2
Control	207	2896	2335	1.24	Sym	3324	3324	1
Control	208	2870	1527	1.88	Sym	2738	1521	1.8
Control	209	2997	2540	1.18	Sym	2975	2917	1.02
Control	210	2632	1841	1.43	Sym	3043	2158	1.41
Control	211	1854	1030	1.8	Sym	3353	2163	1.55
Control	212	2400	2143	1.12	Sym	2442	1565	1.56
Control	213	2504	1941	1.29	Sym	3232	1983	1.63
Control	214	3071	2209	1.39	Sym	3002	2972	1.01
Control	215	1949	1949	1	Sym	2473	2027	1.22
Control	216	1835	1359	1.35	Sym	3063	1951	1.57
Control	217	2752	952	2.89	Asym	3254	551	5.91
Control	218	2920	1872	1.56	Sym	3005	2782	1.08
Control	219	3449	2269	1.52	Sym	2255	1401	1.61
Control	220	1993	1208	1.65	Sym	2762	1959	1.41
Control	221	1861	1739	1.07	Sym	2141	1755	1.22
Control	222	3161	1904	1.66	Sym	3322	3134	1.06
Control	223	2408	1824	1.32	Sym	3206	3375	0.95
Control	224	2591	1751	1.48	Sym	1895	1280	1.48
Control	225	2875	1742	1.65	Sym	2799	2221	1.26
Control	226	2195	1199	1.83	Sym	2977	1627	1.83
Control	227	2328	1361	1.71	Sym	1952	1284	1.52
Control	228	3244	2749	1.18	Sym	2961	2260	1.31
Control	229	2912	513	5.68	Asym	1876	356	5.27
Control	230	2134	1569	1.36	Sym	2693	1593	1.69
Control	231	3107	2285	1.36	Sym	2773	2641	1.05
Control	232	3163	1748	1.81	Sym	2346	2256	1.04
Control	233	2349	2526	0.93	Sym	3163	2614	1.21
Control	234	2359	1887	1.25	Sym	1894	1076	1.76
Control	235	3283	2468	1.33	Sym	1818	1337	1.36
Control	236	3203	2373	1.35	Sym	3146	3115	1.01
Control	237	2281	1825	1.25	Sym	2292	1559	1.47
Control	238	3418	2249	1.52	Sym	3138	1763	1.78
Control	239	1892	1514	1.25	Sym	2324	1277	1.82
Control	240	1871	2227	0.84	Sym	3420	3931	0.87
Control	241	2497	1906	1.31	Sym	1988	1657	1.2
Control	242	3271	2681	1.22	Sym	3034	2685	1.13
Control	243	2020	1788	1.13	Sym	1849	1350	1.37
Control	244	2135	1334	1.6	Sym	2346	1268	1.85
Control	245	3099	1999	1.55	Sym	2739	2107	1.3
Control	246	2384	439	5.43	Asym	3032	1184	2.56
Control	247	3056	2108	1.45	Sym	3087	2270	1.36
Control	248	3192	2086	1.53	Sym	2009	2208	0.91
Control	249	2018	851	2.37	Asym	3486	771	4.52
Control	250	2114	744	2.84	Asym	2574	562	4.58
Control	251	2781	2156	1.29	Sym	2792	1745	1.6
Control	252	1928	1872	1.03	Sym	2126	1915	1.11
Control	253	2254	1273	1.77	Sym	2897	1628	1.78

Control	255	3174	3377	0.94	Sym	3379	2938	1.15
Control	256	2539	2673	0.95	Sym	2696	1912	1.41
Control	257	3330	2313	1.44	Sym	3054	3054	1
Control	258	1856	1751	1.06	Sym	2553	1713	1.49
Control	259	3365	2116	1.59	Sym	1880	2161	0.87
Control	260	2954	2272	1.3	Sym	3139	2012	1.56
Control	261	2856	1623	1.76	Sym	2375	1270	1.87
Control	262	3346	1980	1.69	Sym	1950	2143	0.91
Control	263	2082	1614	1.29	Sym	1933	1757	1.1
Control	264	2240	1238	1.81	Sym	3130	1692	1.85
Control	265	3213	2843	1.13	Sym	2945	1645	1.79
Control	266	3085	2779	1.11	Sym	2361	1723	1.37
Control	267	2319	1784	1.3	Sym	2988	2958	1.01
Control	268	2628	2037	1.29	Sym	2843	1846	1.54
Control	269	2404	1531	1.57	Sym	3114	2273	1.37
Control	270	2407	1308	1.84	Sym	2204	1763	1.25
Control	271	2068	1209	1.71	Sym	2731	1707	1.6
Control	272	2397	2888	0.83	Sym	1891	1444	1.31
Control	273	3125	3511	0.89	Sym	2896	2563	1.13
Control	274	3231	3801	0.85	Sym	3047	2380	1.28
Control	275	2780	657	4.23	Asym	2650	1008	2.63
Control	276	2027	678	2.99	Asym	3263	688	4.74
Control	277	2161	1863	1.16	Sym	3251	1786	1.82
Control	278	2763	2228	1.24	Sym	3242	1762	1.84
Control	279	2507	3020	0.83	Sym	2140	1132	1.89
Control	280	2678	2029	1.32	Sym	3495	2774	1.26
Control	281	1898	1026	1.85	Sym	3458	2096	1.65
Control	282	1810	1828	0.99	Sym	1856	1933	0.96
Control	283	2395	2521	0.95	Sym	3212	2471	1.3
Control	284	2395	399	6	Asym	2469	741	3.33
Control	285	2440	1781	1.37	Sym	2969	3577	0.83
Control	286	3012	2896	1.04	Sym	3416	3349	1.02
Control	287	2357	2773	0.85	Sym	1952	1337	1.46
Control	288	2936	2276	1.29	Sym	2336	1469	1.59
Control	289	2247	1422	1.58	Sym	2210	1535	1.44
Control	290	2732	2788	0.98	Sym	2011	1093	1.84
Control	291	2519	1439	1.75	Sym	2029	1215	1.67
Control	292	1924	1203	1.6	Sym	3274	2183	1.5
Control	293	2735	1563	1.75	Sym	3247	3454	0.94
Control	294	2888	1839	1.57	Sym	3474	3440	1.01
Control	295	2321	1488	1.56	Sym	3294	2656	1.24
Control	296	3389	3389	1	Sym	3429	3235	1.06
Control	297	1837	993	1.85	Sym	2126	2311	0.92
Control	298	2062	1235	1.67	Sym	2781	2959	0.94
Control	299	2454	2697	0.91	Sym	2029	1514	1.34
Control	300	2882	2252	1.28	Sym	2136	1327	1.61
Control	301	2012	1341	1.5	Sym	2623	1499	1.75
Control	302	3402	1989	1.71	Sym	3417	2390	1.43
Control	303	2420	1399	1.73	Sym	3036	2169	1.4
Control	304	2087	2046	1.02	Sym	2474	1537	1.61
Control	305	3062	3093	0.99	Sym	2757	2105	1.31
Control	306	3355	3459	0.97	Sym	2260	2379	0.95
Control	307	1877	1104	1.7	Sym	3467	2051	1.69
Control	308	1905	1121	1.7	Sym	3332	4165	0.8
Control	309	3483	3666	0.95	Sym	2794	3366	0.83
Control	310	3302	2231	1.48	Sym	3295	3621	0.91
Control	311	3123	1940	1.61	Sym	3205	1723	1.86
Control	312	3058	2831	1.08	Sym	3033	2426	1.25
Control	313	3007	3007	1	Sym	2545	2828	0.9
Control	314	1884	2191	0.86	Sym	2639	1670	1.58
Control	315	2131	1430	1.49	Sym	2483	1496	1.66
Control	316	1824	1322	1.38	Sym	2065	2197	0.94
Control	317	2883	2912	0.99	Sym	2457	2100	1.17

Control	319	3058	3028	1.01	Sym	3134	1781	1.76
Control	320	3093	1921	1.61	Sym	2137	1174	1.82
Control	321	2833	1647	1.72	Sym	1951	1823	1.07
Control	322	3012	550	5.48	Asym	2539	648	3.92
Control	323	2240	2113	1.06	Sym	1986	1482	1.34
Control	324	2223	1967	1.13	Sym	3425	2210	1.55
Control	325	2354	1481	1.59	Sym	3487	2583	1.35
Control	326	3400	4000	0.85	Sym	3158	1891	1.67
Control	327	3244	2079	1.56	Sym	3166	2729	1.16
Control	328	3385	3679	0.92	Sym	2752	3440	0.8
Control	329	2169	1339	1.62	Sym	2457	1694	1.45
Control	330	2766	2538	1.09	Sym	3477	2634	1.32
Control	331	1843	2071	0.89	Sym	2749	1774	1.55
Control	332	2354	1757	1.34	Sym	1851	1115	1.66
Control	333	2697	2670	1.01	Sym	2282	1391	1.64
Control	334	3243	3003	1.08	Sym	3141	2362	1.33
Control	335	2590	2515	1.03	Sym	1804	1289	1.4
Control	336	2033	1255	1.62	Sym	1928	1244	1.55
Control	337	2288	422	5.42	Asym	3257	1441	2.26
Control	338	2616	1721	1.52	Sym	2984	2350	1.27
Control	339	2389	2541	0.94	Sym	1875	1720	1.09
Control	340	3451	2655	1.3	Sym	2100	1228	1.71
Control	341	3447	1123	3.07	Asym	2576	578	4.46
Control	342	3311	1780	1.86	Sym	2542	2118	1.2
Control	343	1892	1094	1.73	Sym	2938	2369	1.24
Control	344	2862	3077	0.93	Sym	3278	3246	1.01
Control	345	3092	1777	1.74	Sym	3439	3620	0.95
Control	346	2816	2657	1.06	Sym	2863	1909	1.5
Control	347	2399	2822	0.85	Sym	3340	2212	1.51
Control	348	2569	2854	0.9	Sym	2425	2021	1.2
Control	349	1883	738	2.55	Asym	2483	446	5.57
Control	350	3450	2974	1.16	Sym	2559	3121	0.82
Control	351	2295	531	4.32	Asym	2863	748	3.83
Control	352	2952	1905	1.55	Sym	2351	1729	1.36
Control	353	1829	820	2.23	Asym	1843	430	4.29
Control	354	2042	1428	1.43	Sym	2661	1603	1.66
Control	355	2096	1184	1.77	Sym	1890	995	1.9
Control	356	3321	1989	1.67	Sym	3099	2066	1.5
Control	357	2002	1100	1.82	Sym	3447	4153	0.83
Control	358	3082	3113	0.99	Sym	2603	1505	1.73
Control	359	3470	1886	1.84	Sym	2067	2247	0.92
Control	360	3232	1847	1.75	Sym	2481	1356	1.83
Control	361	3231	1912	1.69	Sym	2273	1709	1.33
Control	362	3234	2156	1.5	Sym	3389	2456	1.38
Control	363	2552	1410	1.81	Sym	3186	1686	1.89
Control	364	2861	1616	1.77	Sym	1831	1221	1.5
Control	365	2103	1216	1.73	Sym	2235	2304	0.97
Control	366	3134	1649	1.9	Sym	2331	2428	0.96
Control	367	2934	1736	1.69	Sym	2746	1855	1.48
Control	368	2294	2030	1.13	Sym	3168	2185	1.45
Control	369	3470	2551	1.36	Sym	3293	3967	0.83
Control	370	2839	3120	0.91	Sym	2340	1490	1.57
Control	371	2778	1625	1.71	Sym	2075	1526	1.36
Control	372	1834	1054	1.74	Sym	3069	2646	1.16
Control	373	3207	2258	1.42	Sym	1980	1112	1.78
Control	374	2765	1268	2.18	Asym	3178	1471	2.16
Control	375	3073	1635	1.88	Sym	2133	2051	1.04
Control	376	2351	1442	1.63	Sym	3159	2527	1.25
Control	377	2333	2011	1.16	Sym	3428	2721	1.26
Control	378	3042	869	3.5	Asym	1957	497	3.94
Control	379	2239	1197	1.87	Sym	2140	1574	1.36
Control	380	2875	1904	1.51	Sym	3057	2658	1.15
Control	381	3093	2474	1.25	Sym	2043	2491	0.82

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Control	383	2840	1552	1.83	Sym	2986	1788	1.67
Control	384	2214	1350	1.64	Sym	2773	2330	1.19
Control	385	3144	2807	1.12	Sym	3291	2438	1.35
Control	386	3078	2824	1.09	Sym	3219	2596	1.24
Control	387	2057	1480	1.39	Sym	3130	2653	1.18
Control	388	1886	317	5.95	Asym	3194	897	3.56
Control	389	3239	2037	1.59	Sym	2667	3175	0.84
Control	390	3295	550	5.99	Asym	2146	613	3.5
Control	391	1923	1748	1.1	Sym	1926	1035	1.86
Control	392	2202	1866	1.18	Sym	3078	2080	1.48
Control	393	2045	1088	1.88	Sym	2484	2791	0.89
Control	394	1879	1112	1.69	Sym	3219	1975	1.63
Control	395	3472	753	4.61	Asym	2167	467	4.64
Control	396	2446	1653	1.48	Sym	3142	2554	1.23
Control	397	2305	1273	1.81	Sym	2507	2532	0.99
Control	398	1873	1058	1.77	Sym	2944	1558	1.89
Control	399	2844	1847	1.54	Sym	2417	1998	1.21
Control	400	2189	1377	1.59	Sym	2664	2003	1.33

Group	Pair cell No	BrdU intensive value		Relative value	Pair cell type
		First cell	Second cel		
SOX9 KO	1	2457	1935	1.27	sym
SOX9 KO	2	3489	1608	2.17	asym
SOX9 KO	3	1834	981	1.87	sym
SOX9 KO	4	3139	3527	0.89	sym
SOX9 KO	5	2537	1738	1.46	sym
SOX9 KO	6	3370	711	4.74	asym
SOX9 KO	7	3336	808	4.13	asym
SOX9 KO	8	2404	1098	2.19	asym
SOX9 KO	9	1893	1564	1.21	sym
SOX9 KO	10	2285	647	3.53	asym
SOX9 KO	11	2363	538	4.39	asym
SOX9 KO	12	2993	2093	1.43	sym
SOX9 KO	13	3421	2461	1.39	sym
SOX9 KO	14	2769	473	5.85	asym
SOX9 KO	15	3103	1410	2.2	asym
SOX9 KO	16	3019	609	4.96	asym
SOX9 KO	17	2793	3365	0.83	sym
SOX9 KO	18	2749	553	4.97	asym
SOX9 KO	19	2526	460	5.49	asym
SOX9 KO	20	3363	623	5.4	asym
SOX9 KO	21	2463	650	3.79	asym
SOX9 KO	22	2798	758	3.69	asym
SOX9 KO	23	2811	1779	1.58	sym
SOX9 KO	24	2574	797	3.23	asym
SOX9 KO	25	2144	2233	0.96	sym
SOX9 KO	26	3186	3063	1.04	sym
SOX9 KO	27	3233	860	3.76	asym
SOX9 KO	28	2729	600	4.55	asym
SOX9 KO	29	3052	1413	2.16	asym
SOX9 KO	30	2330	649	3.59	asym
SOX9 KO	31	2101	515	4.08	asym
SOX9 KO	32	2172	405	5.36	asym
SOX9 KO	33	3190	2045	1.56	sym
SOX9 KO	34	2326	538	4.32	asym
SOX9 KO	35	2174	460	4.73	asym
SOX9 KO	36	2492	586	4.25	asym
SOX9 KO	37	3210	633	5.07	asym
SOX9 KO	38	2045	387	5.29	asym
SOX9 KO	39	1987	662	3	asym
SOX9 KO	40	1896	1003	1.89	sym
SOX9 KO	41	3302	622	5.31	asym
SOX9 KO	42	1989	739	2.69	asym
SOX9 KO	43	3215	563	5.71	asym
SOX9 KO	44	2794	573	4.88	asym
SOX9 KO	45	2691	527	5.11	asym
SOX9 KO	46	2977	2222	1.34	sym
SOX9 KO	47	3346	1809	1.85	sym
SOX9 KO	48	3376	1468	2.3	asym
SOX9 KO	49	2692	680	3.96	asym
SOX9 KO	50	3374	2678	1.26	sym
SOX9 KO	51	2740	1305	2.1	asym
SOX9 KO	52	1878	1015	1.85	sym
SOX9 KO	53	1874	352	5.33	asym
SOX9 KO	54	3134	2798	1.12	sym
SOX9 KO	55	2643	626	4.22	asym
SOX9 KO	56	2107	2107	1	sym

SOX9 KO	58	3408	659	5.17	asym
SOX9 KO	59	2655	491	5.41	asym
SOX9 KO	60	3137	1936	1.62	sym
SOX9 KO	61	2486	2021	1.23	sym
SOX9 KO	62	3022	2159	1.4	sym
SOX9 KO	63	3080	3111	0.99	sym
SOX9 KO	64	3409	668	5.1	asym
SOX9 KO	65	2167	1321	1.64	sym
SOX9 KO	66	3348	1913	1.75	sym
SOX9 KO	67	3423	2876	1.19	sym
SOX9 KO	68	3169	1434	2.21	asym
SOX9 KO	69	2751	972	2.83	asym
SOX9 KO	70	3053	670	4.56	asym
SOX9 KO	71	2082	448	4.65	asym
SOX9 KO	72	2387	449	5.32	asym
SOX9 KO	73	1894	734	2.58	asym
SOX9 KO	74	2326	1593	1.46	sym
SOX9 KO	75	2275	813	2.8	asym
SOX9 KO	76	2940	964	3.05	asym
SOX9 KO	77	1961	1083	1.81	sym
SOX9 KO	78	2550	1861	1.37	sym
SOX9 KO	79	2016	1102	1.83	sym
SOX9 KO	80	3313	872	3.8	asym
SOX9 KO	81	2519	692	3.64	asym
SOX9 KO	82	2164	2081	1.04	sym
SOX9 KO	83	3483	1935	1.8	sym
SOX9 KO	84	2734	673	4.06	asym
SOX9 KO	85	2347	1575	1.49	sym
SOX9 KO	86	3071	1312	2.34	asym
SOX9 KO	87	3400	2411	1.41	sym
SOX9 KO	88	1876	361	5.2	asym
SOX9 KO	89	2740	1489	1.84	sym
SOX9 KO	90	3034	1850	1.64	sym
SOX9 KO	91	2782	756	3.68	asym
SOX9 KO	92	1936	371	5.22	asym
SOX9 KO	93	2932	583	5.03	asym
SOX9 KO	94	3477	2484	1.4	sym
SOX9 KO	95	2657	631	4.21	asym
SOX9 KO	96	2240	1483	1.51	sym
SOX9 KO	97	3310	680	4.87	asym
SOX9 KO	98	3339	1484	2.25	asym
SOX9 KO	99	2179	364	5.99	asym
SOX9 KO	100	3354	1863	1.8	sym
SOX9 KO	101	2244	1344	1.67	sym
SOX9 KO	102	3461	3762	0.92	sym
SOX9 KO	103	2140	866	2.47	asym
SOX9 KO	104	3323	3135	1.06	sym
SOX9 KO	105	3120	726	4.3	asym
SOX9 KO	106	2451	1377	1.78	sym
SOX9 KO	107	3318	3770	0.88	sym
SOX9 KO	108	3341	1498	2.23	asym
SOX9 KO	109	2565	530	4.84	asym
SOX9 KO	110	2378	1071	2.22	asym
SOX9 KO	111	2373	804	2.95	asym
SOX9 KO	112	2932	891	3.29	asym
SOX9 KO	113	2800	685	4.09	asym
SOX9 KO	114	2265	521	4.35	asym
SOX9 KO	115	2669	699	3.82	asym

SOX9 KO	117	2610	2270	1.15	sym
SOX9 KO	118	1883	1207	1.56	sym
SOX9 KO	119	3220	739	4.36	asym
SOX9 KO	120	2807	1040	2.7	asym
SOX9 KO	121	2117	1997	1.06	sym
SOX9 KO	122	2799	1854	1.51	sym
SOX9 KO	123	2154	2071	1.04	sym
SOX9 KO	124	3169	767	4.13	asym
SOX9 KO	125	2781	590	4.71	asym
SOX9 KO	126	2522	1025	2.46	asym
SOX9 KO	127	2487	1463	1.7	sym
SOX9 KO	128	2540	656	3.87	asym
SOX9 KO	129	2208	2165	1.02	sym
SOX9 KO	130	3478	2655	1.31	sym
SOX9 KO	131	3480	1294	2.69	asym
SOX9 KO	132	2709	1101	2.46	asym
SOX9 KO	133	1831	1213	1.51	sym
SOX9 KO	134	3023	769	3.93	asym
SOX9 KO	135	2552	448	5.7	asym
SOX9 KO	136	2030	446	4.55	asym
SOX9 KO	137	3230	1700	1.9	sym
SOX9 KO	138	1960	2390	0.82	sym
SOX9 KO	139	2335	1588	1.47	sym
SOX9 KO	140	2434	573	4.25	asym
SOX9 KO	141	2680	597	4.49	asym
SOX9 KO	142	3474	1941	1.79	sym
SOX9 KO	143	2990	849	3.52	asym
SOX9 KO	144	2469	802	3.08	asym
SOX9 KO	145	3251	3737	0.87	sym
SOX9 KO	146	1976	413	4.78	asym
SOX9 KO	147	2528	1053	2.4	asym
SOX9 KO	148	2600	2680	0.97	sym
SOX9 KO	149	2525	1065	2.37	asym
SOX9 KO	150	3036	693	4.38	asym
SOX9 KO	151	2196	1255	1.75	sym
SOX9 KO	152	3199	824	3.88	asym
SOX9 KO	153	2645	1191	2.22	asym
SOX9 KO	154	2142	571	3.75	asym
SOX9 KO	155	2905	730	3.98	asym
SOX9 KO	156	2879	1986	1.45	sym
SOX9 KO	157	1987	475	4.18	asym
SOX9 KO	158	2484	463	5.37	asym
SOX9 KO	159	2516	1108	2.27	asym
SOX9 KO	160	1831	852	2.15	asym
SOX9 KO	161	2578	2261	1.14	sym
SOX9 KO	162	3387	746	4.54	asym
SOX9 KO	163	1940	2205	0.88	sym
SOX9 KO	164	2211	1208	1.83	sym
SOX9 KO	165	2542	1599	1.59	sym
SOX9 KO	166	3222	571	5.64	asym
SOX9 KO	167	2197	1758	1.25	sym
SOX9 KO	168	3176	1035	3.07	asym
SOX9 KO	169	3495	657	5.32	asym
SOX9 KO	170	2681	779	3.44	asym
SOX9 KO	171	2736	516	5.3	asym
SOX9 KO	172	3102	1951	1.59	sym
SOX9 KO	173	2884	3517	0.82	sym
SOX9 KO	174	2578	914	2.82	asym

SOX9 KO	176	3151	552	5.71	asym
SOX9 KO	177	2835	2116	1.34	sym
SOX9 KO	178	2753	2294	1.2	sym
SOX9 KO	179	2852	3355	0.85	sym
SOX9 KO	180	3174	1312	2.42	asym
SOX9 KO	181	2936	1631	1.8	sym
SOX9 KO	182	2564	458	5.6	asym
SOX9 KO	183	2540	1984	1.28	sym
SOX9 KO	184	2994	1983	1.51	sym
SOX9 KO	185	2056	875	2.35	asym
SOX9 KO	186	2258	469	4.81	asym
SOX9 KO	187	1951	461	4.23	asym
SOX9 KO	188	3399	3332	1.02	sym
SOX9 KO	189	2956	778	3.8	asym
SOX9 KO	190	2479	1967	1.26	sym
SOX9 KO	191	2128	434	4.9	asym
SOX9 KO	192	2447	1735	1.41	sym
SOX9 KO	193	2542	782	3.25	asym
SOX9 KO	194	2781	2439	1.14	sym
SOX9 KO	195	3331	672	4.96	asym
SOX9 KO	196	3072	590	5.21	asym
SOX9 KO	197	2413	2462	0.98	sym
SOX9 KO	198	2345	489	4.8	asym
SOX9 KO	199	2949	2920	1.01	sym
SOX9 KO	200	3200	1758	1.82	sym
SOX9 KO	201	2420	441	5.49	asym
SOX9 KO	202	3364	609	5.52	asym
SOX9 KO	203	3346	818	4.09	asym
SOX9 KO	204	2366	1024	2.31	asym
SOX9 KO	205	3042	1800	1.69	sym
SOX9 KO	206	3384	819	4.13	asym
SOX9 KO	207	3370	1518	2.22	asym
SOX9 KO	208	2406	2480	0.97	sym
SOX9 KO	209	2238	1250	1.79	sym
SOX9 KO	210	2086	491	4.25	asym
SOX9 KO	211	2643	1716	1.54	sym
SOX9 KO	212	3402	1087	3.13	asym
SOX9 KO	213	2983	2572	1.16	sym
SOX9 KO	214	2800	903	3.1	asym
SOX9 KO	215	2027	630	3.22	asym
SOX9 KO	216	2325	2193	1.06	sym
SOX9 KO	217	2679	690	3.88	asym
SOX9 KO	218	2764	634	4.36	asym
SOX9 KO	219	2261	499	4.53	asym
SOX9 KO	220	2581	2225	1.16	sym
SOX9 KO	221	3236	624	5.19	asym
SOX9 KO	222	2943	772	3.81	asym
SOX9 KO	223	1989	1894	1.05	sym
SOX9 KO	224	1936	338	5.72	asym
SOX9 KO	225	3287	643	5.11	asym
SOX9 KO	226	2232	535	4.17	asym
SOX9 KO	227	2082	1498	1.39	sym
SOX9 KO	228	2949	1180	2.5	asym
SOX9 KO	229	3117	2474	1.26	sym
SOX9 KO	230	3089	2914	1.06	sym
SOX9 KO	231	3104	892	3.48	asym
SOX9 KO	232	2361	843	2.8	asym
SOX9 KO	233	2284	1368	1.67	sym

SOX9 KO	235	2638	1832	1.44	sym
SOX9 KO	236	2387	793	3.01	asym
SOX9 KO	237	2453	810	3.03	asym
SOX9 KO	238	2828	2525	1.12	sym
SOX9 KO	239	2356	854	2.76	asym
SOX9 KO	240	3485	734	4.75	asym
SOX9 KO	241	2256	1484	1.52	sym
SOX9 KO	242	3119	3318	0.94	sym
SOX9 KO	243	2163	781	2.77	asym
SOX9 KO	244	2058	593	3.47	asym
SOX9 KO	245	3124	2125	1.47	sym
SOX9 KO	246	2382	603	3.95	asym
SOX9 KO	247	2179	376	5.79	asym
SOX9 KO	248	2478	1158	2.14	asym
SOX9 KO	249	3432	2119	1.62	sym
SOX9 KO	250	2850	1135	2.51	asym
SOX9 KO	251	2382	1861	1.28	sym
SOX9 KO	252	1976	1098	1.8	sym
SOX9 KO	253	2155	623	3.46	asym
SOX9 KO	254	2237	968	2.31	asym
SOX9 KO	255	2539	2287	1.11	sym
SOX9 KO	256	1931	815	2.37	asym
SOX9 KO	257	2712	2260	1.2	sym
SOX9 KO	258	3046	2957	1.03	sym
SOX9 KO	259	2560	977	2.62	asym
SOX9 KO	260	3211	907	3.54	asym
SOX9 KO	261	2979	676	4.41	asym
SOX9 KO	262	2423	2264	1.07	sym
SOX9 KO	263	1950	418	4.66	asym
SOX9 KO	264	2240	1445	1.55	sym
SOX9 KO	265	2316	481	4.81	asym
SOX9 KO	266	3410	2368	1.44	sym
SOX9 KO	267	2068	614	3.37	asym
SOX9 KO	268	3416	1366	2.5	asym
SOX9 KO	269	2798	962	2.91	asym
SOX9 KO	270	2181	1474	1.48	sym
SOX9 KO	271	2566	2138	1.2	sym
SOX9 KO	272	1853	504	3.68	asym
SOX9 KO	273	1951	1774	1.1	sym
SOX9 KO	274	1988	825	2.41	asym
SOX9 KO	275	3210	540	5.94	asym
SOX9 KO	276	3381	672	5.03	asym
SOX9 KO	277	2969	800	3.71	asym
SOX9 KO	278	2440	493	4.95	asym
SOX9 KO	279	3057	2805	1.09	sym
SOX9 KO	280	3010	645	4.67	asym
SOX9 KO	281	3347	720	4.65	asym
SOX9 KO	282	2714	694	3.91	asym
SOX9 KO	283	3398	3861	0.88	sym
SOX9 KO	284	3455	1294	2.67	asym
SOX9 KO	285	3144	682	4.61	asym
SOX9 KO	286	3213	2700	1.19	sym
SOX9 KO	287	2344	1789	1.31	sym
SOX9 KO	288	2194	1199	1.83	sym
SOX9 KO	289	2490	626	3.98	asym
SOX9 KO	290	2428	2961	0.82	sym
SOX9 KO	291	3344	947	3.53	asym
SOX9 KO	292	2796	808	3.46	asym

SOX9 KO	294	2071	1593	1.3	sym
SOX9 KO	295	2715	3157	0.86	sym
SOX9 KO	296	2306	2261	1.02	sym
SOX9 KO	297	2374	2047	1.16	sym
SOX9 KO	298	2589	1370	1.89	sym
SOX9 KO	299	1807	376	4.8	asym
SOX9 KO	300	2316	510	4.54	asym
SOX9 KO	301	2614	1665	1.57	sym
SOX9 KO	302	3218	2750	1.17	sym
SOX9 KO	303	2132	420	5.08	asym
SOX9 KO	304	1853	674	2.75	asym
SOX9 KO	305	3048	2959	1.03	sym
SOX9 KO	306	2376	410	5.79	asym
SOX9 KO	307	3420	748	4.57	asym
SOX9 KO	308	2789	518	5.38	asym
SOX9 KO	309	3410	3444	0.99	sym
SOX9 KO	310	2269	1240	1.83	sym
SOX9 KO	311	1813	991	1.83	sym
SOX9 KO	312	1815	390	4.65	asym
SOX9 KO	313	2504	532	4.71	asym
SOX9 KO	314	2303	1212	1.9	sym
SOX9 KO	315	2255	532	4.24	asym
SOX9 KO	316	2486	528	4.71	asym
SOX9 KO	317	2799	1206	2.32	asym
SOX9 KO	318	1868	625	2.99	asym
SOX9 KO	319	3273	689	4.75	asym
SOX9 KO	320	2193	2611	0.84	sym
SOX9 KO	321	1967	596	3.3	asym
SOX9 KO	322	3337	3667	0.91	sym
SOX9 KO	323	2104	1783	1.18	sym
SOX9 KO	324	2733	2024	1.35	sym
SOX9 KO	325	2853	3566	0.8	sym
SOX9 KO	326	2276	2014	1.13	sym
SOX9 KO	327	2041	1701	1.2	sym
SOX9 KO	328	3002	1225	2.45	asym
SOX9 KO	329	1881	1425	1.32	sym
SOX9 KO	330	2415	1438	1.68	sym
SOX9 KO	331	2267	1326	1.71	sym
SOX9 KO	332	3387	2016	1.68	sym
SOX9 KO	333	2457	2118	1.16	sym
SOX9 KO	334	3201	655	4.89	asym
SOX9 KO	335	2242	1446	1.55	sym
SOX9 KO	336	3088	800	3.86	asym
SOX9 KO	337	3167	825	3.84	asym
SOX9 KO	338	3362	2923	1.15	sym
SOX9 KO	339	3422	1494	2.29	asym
SOX9 KO	340	2297	424	5.42	asym
SOX9 KO	341	2629	1891	1.39	sym
SOX9 KO	342	2149	1761	1.22	sym
SOX9 KO	343	2583	452	5.71	asym
SOX9 KO	344	3098	863	3.59	asym
SOX9 KO	345	2254	780	2.89	asym
SOX9 KO	346	2474	2079	1.19	sym
SOX9 KO	347	2362	438	5.39	asym
SOX9 KO	348	2602	2387	1.09	sym
SOX9 KO	349	2989	2959	1.01	sym
SOX9 KO	350	1848	570	3.24	asym
SOX9 KO	351	2702	2729	0.99	sym

SOX9 KO	353	2625	2134	1.23	sym
SOX9 KO	354	2482	489	5.08	asym
SOX9 KO	355	2645	1438	1.84	sym
SOX9 KO	356	3310	1403	2.36	asym
SOX9 KO	357	3312	928	3.57	asym
SOX9 KO	358	1848	590	3.13	asym
SOX9 KO	359	3285	550	5.97	asym
SOX9 KO	360	2927	895	3.27	asym
SOX9 KO	361	2484	444	5.6	asym
SOX9 KO	362	2751	1937	1.42	sym
SOX9 KO	363	2386	1491	1.6	sym
SOX9 KO	364	2299	386	5.95	asym
SOX9 KO	365	3219	572	5.63	asym
SOX9 KO	366	2727	770	3.54	asym
SOX9 KO	367	2122	2002	1.06	sym
SOX9 KO	368	3453	778	4.44	asym
SOX9 KO	369	1883	2325	0.81	sym
SOX9 KO	370	2584	1770	1.46	sym
SOX9 KO	371	2829	604	4.68	asym
SOX9 KO	372	1942	486	4	asym
SOX9 KO	373	1953	458	4.26	asym
SOX9 KO	374	2881	689	4.18	asym
SOX9 KO	375	3299	1274	2.59	asym
SOX9 KO	376	2217	414	5.35	asym
SOX9 KO	377	2982	1744	1.71	sym
SOX9 KO	378	3081	663	4.65	asym
SOX9 KO	379	3127	1681	1.86	sym
SOX9 KO	380	1914	1622	1.18	sym
SOX9 KO	381	3450	2315	1.49	sym
SOX9 KO	382	2329	1941	1.2	sym
SOX9 KO	383	2687	496	5.42	asym
SOX9 KO	384	1946	2237	0.87	sym
SOX9 KO	385	2558	1075	2.38	asym
SOX9 KO	386	2979	2503	1.19	sym
SOX9 KO	387	2888	581	4.97	asym
SOX9 KO	388	1949	805	2.42	asym
SOX9 KO	389	2575	671	3.84	asym
SOX9 KO	390	3377	4169	0.81	sym
SOX9 KO	391	2127	861	2.47	asym
SOX9 KO	392	3275	589	5.56	asym
SOX9 KO	393	2150	1693	1.27	sym
SOX9 KO	394	3160	1892	1.67	sym
SOX9 KO	395	1921	404	4.75	asym
SOX9 KO	396	2294	500	4.59	asym
SOX9 KO	397	3215	2172	1.48	sym
SOX9 KO	398	2881	616	4.68	asym
SOX9 KO	399	2792	821	3.4	asym
SOX9 KO	400	3116	552	5.64	asym

Group	Pair cell No.	BrdU intensive value		Relative value	Pair cell type	SOX9 intensive value		Relative value
		First cell	Second cell			First cell	Second cel	
Control	1	3107	1895	1.64	Sym	3326	2376	1.4
Control	2	2791	1493	1.87	Sym	1841	1841	1
Control	3	2869	1839	1.56	Sym	3440	3373	1.02
Control	4	2433	1978	1.23	Sym	2009	1913	1.05
Control	5	3083	1880	1.64	Sym	3469	2053	1.69
Control	6	3160	3901	0.81	Sym	3496	2185	1.6
Control	7	3025	509	5.94	Asym	3158	639	4.94
Control	8	2336	2290	1.02	Sym	2097	1226	1.71
Control	9	3098	2137	1.45	Sym	2759	3449	0.8
Control	10	2673	779	3.43	Asym	3387	857	3.95
Control	11	2377	877	2.71	Asym	3049	1109	2.75
Control	12	3236	613	5.28	Asym	3437	629	5.46
Control	13	2522	3002	0.84	Sym	3048	2628	1.16
Control	14	2404	2037	1.18	Sym	2932	3119	0.94
Control	15	1967	1058	1.86	Sym	3146	3243	0.97
Control	16	1954	471	4.15	Asym	2866	922	3.11
Control	17	2525	1419	1.78	Sym	3246	2556	1.27
Control	18	2771	2664	1.04	Sym	2559	2976	0.86
Control	19	2285	1377	1.66	Sym	2783	3353	0.83
Control	20	3275	3522	0.93	Sym	1837	1934	0.95
Control	21	2783	1538	1.81	Sym	2886	1739	1.66
Control	22	2304	1800	1.28	Sym	2287	2137	1.07
Control	23	2310	2063	1.12	Sym	3470	2427	1.43
Control	24	3415	586	5.83	Asym	2566	752	3.41
Control	25	2533	2611	0.97	Sym	2158	1420	1.52
Control	26	3389	2801	1.21	Sym	3063	1926	1.59
Control	27	1865	1492	1.25	Sym	3089	1745	1.77
Control	28	1802	459	3.93	Asym	2920	697	4.19
Control	29	2386	1318	1.81	Sym	2133	1262	1.69
Control	30	2969	3299	0.9	Sym	2312	1418	1.63
Control	31	2687	1233	2.18	Asym	1922	821	2.34
Control	32	2746	1772	1.55	Sym	2662	1504	1.77
Control	33	2328	1455	1.6	Sym	2955	2157	1.37
Control	34	3043	3538	0.86	Sym	2008	1476	1.36
Control	35	2917	2297	1.27	Sym	1845	1708	1.08
Control	36	2980	2113	1.41	Sym	2658	1749	1.52
Control	37	1835	1147	1.6	Sym	2910	2256	1.29
Control	38	2383	2432	0.98	Sym	3120	1825	1.71
Control	39	2423	985	2.46	Asym	2707	957	2.83
Control	40	2058	399	5.16	Asym	2041	932	2.19
Control	41	3337	4070	0.82	Sym	2043	1502	1.36
Control	42	3179	1999	1.59	Sym	2778	1736	1.6
Control	43	2561	1778	1.44	Sym	2612	1949	1.34
Control	44	2731	828	3.3	Asym	3190	1512	2.11
Control	45	3500	2035	1.72	Sym	2829	2319	1.22
Control	46	2862	1934	1.48	Sym	2737	2683	1.02
Control	47	2391	1638	1.46	Sym	2500	1645	1.52
Control	48	2137	678	3.15	Asym	2745	787	3.49
Control	49	2181	1947	1.12	Sym	2756	2136	1.29
Control	50	3086	565	5.46	Asym	3132	685	4.57
Control	51	2831	765	3.7	Asym	2281	592	3.85
Control	52	3384	2995	1.13	Sym	3407	3663	0.93
Control	53	2080	1475	1.41	Sym	2011	1070	1.88
Control	54	3348	1781	1.88	Sym	2590	2910	0.89
Control	55	2144	1211	1.77	Sym	2023	2248	0.9
Control	56	1840	1172	1.57	Sym	1804	1596	1.13
Control	57	2383	1528	1.56	Sym	2225	2023	1.1
Control	58	2847	3129	0.91	Sym	3247	2706	1.2
Control	59	1987	1967	1.01	Sym	2710	1760	1.54
Control	60	3200	2883	1.11	Sym	2303	1265	1.82
Control	61	2044	1622	1.26	Sym	3147	2518	1.25

Control	63	2877	558	5.16	Asym	1903	752	2.53
Control	64	2069	455	4.55	Asym	3251	836	3.89
Control	65	2060	1504	1.37	Sym	2290	2602	0.88
Control	66	1888	1748	1.08	Sym	3054	3085	0.99
Control	67	1951	374	5.22	Asym	2123	641	3.31
Control	68	2319	1770	1.31	Sym	2116	1383	1.53
Control	69	2565	2490	1.03	Sym	2721	2616	1.04
Control	70	2229	2423	0.92	Sym	3121	2497	1.25
Control	71	3002	1632	1.84	Sym	2838	1957	1.45
Control	72	2865	3256	0.88	Sym	2611	1776	1.47
Control	73	2122	1166	1.82	Sym	3303	1887	1.75
Control	74	2729	2052	1.33	Sym	3180	2585	1.23
Control	75	1890	1800	1.05	Sym	3176	2715	1.17
Control	76	2717	1518	1.79	Sym	3445	3828	0.9
Control	77	2640	798	3.31	Asym	2332	785	2.97
Control	78	1974	1182	1.67	Sym	2987	3247	0.92
Control	79	2480	2787	0.89	Sym	3320	3018	1.1
Control	80	1891	739	2.56	Asym	1813	393	4.61
Control	81	3153	1704	1.85	Sym	3198	1938	1.65
Control	82	3361	2453	1.37	Sym	2560	2876	0.89
Control	83	3312	1937	1.71	Sym	3277	2324	1.41
Control	84	2304	1422	1.62	Sym	2256	2350	0.96
Control	85	3121	1724	1.81	Sym	3103	2847	1.09
Control	86	3247	2423	1.34	Sym	1912	1346	1.42
Control	87	3390	3531	0.96	Sym	1998	1249	1.6
Control	88	2292	852	2.69	Asym	2150	501	4.29
Control	89	2196	1580	1.39	Sym	3460	3495	0.99
Control	90	2413	2488	0.97	Sym	2699	2782	0.97
Control	91	2242	1384	1.62	Sym	2600	1405	1.85
Control	92	2378	1843	1.29	Sym	2829	3143	0.9
Control	93	3329	3329	1	Sym	3350	3895	0.86
Control	94	2311	2889	0.8	Sym	2986	2619	1.14
Control	95	2838	2468	1.15	Sym	3140	2617	1.2
Control	96	3296	2724	1.21	Sym	3431	3689	0.93
Control	97	2155	2113	1.02	Sym	2708	2579	1.05
Control	98	2130	1121	1.9	Sym	2788	2213	1.26
Control	99	1822	341	5.34	Asym	2497	932	2.68
Control	100	2145	1198	1.79	Sym	3130	2032	1.54
Control	101	2793	2024	1.38	Sym	2302	2131	1.08
Control	102	2785	2004	1.39	Sym	3440	2177	1.58
Control	103	2983	3278	0.91	Sym	3359	2452	1.37
Control	104	1856	1146	1.62	Sym	1837	2213	0.83
Control	105	3060	1832	1.67	Sym	2685	1755	1.53
Control	106	3046	2986	1.02	Sym	2746	1644	1.67
Control	107	2078	1267	1.64	Sym	2858	1520	1.88
Control	108	3039	1164	2.61	Asym	2665	478	5.57
Control	109	3136	2658	1.18	Sym	3407	2469	1.38
Control	110	2958	1599	1.85	Sym	3101	3876	0.8
Control	111	2878	2525	1.14	Sym	3459	2724	1.27
Control	112	2899	3371	0.86	Sym	3494	2443	1.43
Control	113	1867	1518	1.23	Sym	2293	2730	0.84
Control	114	2585	1596	1.62	Sym	1849	1849	1
Control	115	3015	3077	0.98	Sym	3240	1770	1.83
Control	116	3083	2028	1.52	Sym	1861	1465	1.27
Control	117	1883	1494	1.26	Sym	2347	1269	1.85
Control	118	3061	1637	1.87	Sym	2255	1996	1.13
Control	119	2945	2975	0.99	Sym	3310	3805	0.87
Control	120	3079	530	5.81	Asym	3451	575	6
Control	121	2183	2568	0.85	Sym	2478	1362	1.82
Control	122	2216	1666	1.33	Sym	3467	3210	1.08
Control	123	2877	1607	1.79	Sym	1986	1552	1.28
Control	124	3332	2164	1.54	Sym	1972	1565	1.26
Control	125	1843	986	1.87	Sym	2631	1790	1.47

Control	127	2444	2628	0.93	Sym	3037	2410	1.26
Control	128	2638	1418	1.86	Sym	2224	1794	1.24
Control	129	2866	2429	1.18	Sym	3068	1733	1.77
Control	130	1990	1157	1.72	Sym	3225	2879	1.12
Control	131	1837	606	3.03	Asym	2853	489	5.84
Control	132	2298	2298	1	Sym	2261	1338	1.69
Control	133	2337	1558	1.5	Sym	3427	4231	0.81
Control	134	2167	1642	1.32	Sym	2833	2485	1.14
Control	135	3286	2176	1.51	Sym	2378	2530	0.94
Control	136	2518	1574	1.6	Sym	2488	1740	1.43
Control	137	2294	452	5.07	Asym	1921	374	5.13
Control	138	1938	474	4.09	Asym	2441	763	3.2
Control	139	2567	1930	1.33	Sym	3093	3555	0.87
Control	140	2787	3441	0.81	Sym	2036	1725	1.18
Control	141	2900	2042	1.42	Sym	1861	1632	1.14
Control	142	3445	1991	1.73	Sym	2185	2401	0.91
Control	143	2767	1870	1.48	Sym	2606	2190	1.19
Control	144	3203	2408	1.33	Sym	2694	3061	0.88
Control	145	2291	1225	1.87	Sym	2503	2052	1.22
Control	146	2952	2400	1.23	Sym	3321	2913	1.14
Control	147	2338	1812	1.29	Sym	2065	2488	0.83
Control	148	2554	2717	0.94	Sym	2450	1485	1.65
Control	149	2262	2486	0.91	Sym	2054	1698	1.21
Control	150	3314	680	4.87	Asym	2949	532	5.54
Control	151	3338	3514	0.95	Sym	2757	1490	1.85
Control	152	2382	1751	1.36	Sym	1812	1461	1.24
Control	153	2505	1883	1.33	Sym	1872	1163	1.61
Control	154	3167	1919	1.65	Sym	2658	1469	1.81
Control	155	2374	1326	1.79	Sym	3168	1676	1.89
Control	156	3284	4105	0.8	Sym	2657	2657	1
Control	157	2143	1315	1.63	Sym	2818	1917	1.47
Control	158	3001	2363	1.27	Sym	2689	1601	1.68
Control	159	3193	1707	1.87	Sym	1828	1101	1.66
Control	160	1959	1076	1.82	Sym	2607	2507	1.04
Control	161	2048	1296	1.58	Sym	2030	2030	1
Control	162	2982	2242	1.33	Sym	3123	1764	1.77
Control	163	2672	2386	1.12	Sym	1939	1701	1.14
Control	164	2331	2649	0.88	Sym	2105	2567	0.82
Control	165	1928	824	2.34	Asym	2653	448	5.92
Control	166	1911	1300	1.47	Sym	3383	3284	1.03
Control	167	3365	2274	1.48	Sym	1861	1662	1.12
Control	168	2520	1326	1.9	Sym	2657	1510	1.76
Control	169	3428	2414	1.42	Sym	2295	1289	1.78
Control	170	1911	1022	1.87	Sym	3295	2968	1.11
Control	171	2471	2025	1.22	Sym	3485	2766	1.26
Control	172	3350	2538	1.32	Sym	2258	1851	1.22
Control	173	2425	2449	0.99	Sym	2915	1695	1.72
Control	174	3483	1427	2.44	Asym	2252	461	4.88
Control	175	2906	1579	1.84	Sym	2792	2038	1.37
Control	176	2448	1033	2.37	Asym	3158	1071	2.95
Control	177	2542	2173	1.17	Sym	2926	2167	1.35
Control	178	2561	1506	1.7	Sym	3116	2120	1.47
Control	179	2699	1038	2.6	Asym	2686	619	4.34
Control	180	2514	1533	1.64	Sym	3430	2287	1.5
Control	181	2278	2449	0.93	Sym	2294	1390	1.65
Control	182	2775	521	5.33	Asym	2032	498	4.08
Control	183	1842	1485	1.24	Sym	3372	2555	1.32
Control	184	3407	3786	0.9	Sym	3266	2384	1.37
Control	185	2596	2917	0.89	Sym	2927	1673	1.75
Control	186	3392	736	4.61	Asym	3041	529	5.75
Control	187	3363	2002	1.68	Sym	2912	1636	1.78
Control	188	2356	623	3.78	Asym	3278	967	3.39
Control	189	2208	2567	0.86	Sym	3329	2581	1.29

Control	191	2134	1192	1.79	Sym	3042	1728	1.76
Control	192	2902	3120	0.93	Sym	3403	1923	1.77
Control	193	2068	1149	1.8	Sym	2378	1711	1.39
Control	194	2899	2989	0.97	Sym	3043	1855	1.64
Control	195	2505	1193	2.1	Asym	3275	1187	2.76
Control	196	1862	1017	1.83	Sym	2751	1752	1.57
Control	197	3405	2169	1.57	Sym	2497	1621	1.54
Control	198	3043	3538	0.86	Sym	2144	1702	1.26
Control	199	3449	1982	1.74	Sym	2382	2561	0.93
Control	200	2726	2869	0.95	Sym	2408	1584	1.52
Control	201	2571	608	4.23	Asym	2298	672	3.42
Control	202	3183	1840	1.73	Sym	3331	2431	1.37
Control	203	2638	3032	0.87	Sym	3009	1729	1.74
Control	204	2372	1811	1.31	Sym	2490	1886	1.32
Control	205	2343	2130	1.1	Sym	3085	3085	1
Control	206	2393	790	3.03	Asym	3272	1194	2.74
Control	207	2930	2007	1.46	Sym	2050	2412	0.85
Control	208	2093	1325	1.58	Sym	3420	3758	0.91
Control	209	3243	1977	1.64	Sym	3073	2227	1.38
Control	210	2866	701	4.09	Asym	2785	523	5.33
Control	211	2201	2057	1.07	Sym	2802	2437	1.15
Control	212	2198	574	3.83	Asym	2032	675	3.01
Control	213	3270	1787	1.83	Sym	1917	1229	1.56
Control	214	2893	1564	1.85	Sym	2452	1542	1.59
Control	215	3423	2760	1.24	Sym	3371	2809	1.2
Control	216	3028	2940	1.03	Sym	2907	1938	1.5
Control	217	1846	1634	1.13	Sym	3091	2240	1.38
Control	218	2159	724	2.98	Asym	2957	611	4.84
Control	219	2686	1421	1.89	Sym	2224	1951	1.14
Control	220	1874	1179	1.59	Sym	2981	1665	1.79
Control	221	2330	1316	1.77	Sym	2172	2586	0.84
Control	222	2884	3315	0.87	Sym	2233	2376	0.94
Control	223	1814	2212	0.82	Sym	3216	1720	1.87
Control	224	2732	2627	1.04	Sym	2563	2642	0.97
Control	225	3253	3354	0.97	Sym	2110	1529	1.38
Control	226	2955	3518	0.84	Sym	3494	2607	1.34
Control	227	2107	1771	1.19	Sym	3465	3300	1.05
Control	228	2543	2734	0.93	Sym	3464	3012	1.15
Control	229	2320	1373	1.69	Sym	3213	2312	1.39
Control	230	2495	857	2.91	Asym	2212	395	5.6
Control	231	2820	1986	1.42	Sym	2918	1667	1.75
Control	232	2168	1153	1.88	Sym	2715	2207	1.23
Control	233	3037	1934	1.57	Sym	2665	2835	0.94
Control	234	2009	1339	1.5	Sym	2440	1506	1.62
Control	235	3426	4230	0.81	Sym	2670	1679	1.59
Control	236	2566	1614	1.59	Sym	2231	1594	1.4
Control	237	2997	556	5.39	Asym	3110	772	4.03
Control	238	2660	1446	1.84	Sym	3334	3509	0.95
Control	239	2638	683	3.86	Asym	2811	1094	2.57
Control	240	2150	395	5.44	Asym	3126	936	3.34
Control	241	3364	2027	1.66	Sym	3001	2480	1.21
Control	242	2667	1515	1.76	Sym	2559	2285	1.12
Control	243	3298	2919	1.13	Sym	3365	3365	1
Control	244	2260	2690	0.84	Sym	2916	3276	0.89
Control	245	2897	2455	1.18	Sym	3313	1984	1.67
Control	246	2073	1607	1.29	Sym	2836	2383	1.19
Control	247	2360	1333	1.77	Sym	2273	1270	1.79
Control	248	2429	1883	1.29	Sym	2703	2291	1.18
Control	249	3389	3987	0.85	Sym	2230	1385	1.61
Control	250	2553	1576	1.62	Sym	2709	3187	0.85
Control	251	1828	1164	1.57	Sym	2951	3279	0.9
Control	252	2672	2323	1.15	Sym	2055	1117	1.84
Control	253	2069	1629	1.27	Sym	3220	2776	1.16

Control	255	2892	2537	1.14	Sym	3196	2577	1.24
Control	256	2404	1541	1.56	Sym	3332	3744	0.89
Control	257	3083	1742	1.77	Sym	2879	2440	1.18
Control	258	2002	1251	1.6	Sym	2688	1659	1.62
Control	259	2150	1352	1.59	Sym	2924	2565	1.14
Control	260	2417	2120	1.14	Sym	3082	2506	1.23
Control	261	2342	1354	1.73	Sym	1854	991	1.87
Control	262	3314	2785	1.19	Sym	2436	2486	0.98
Control	263	2956	2384	1.24	Sym	2642	1592	1.66
Control	264	2960	2387	1.24	Sym	2946	1796	1.64
Control	265	3076	533	5.77	Asym	3124	737	4.24
Control	266	2338	1635	1.43	Sym	2100	1409	1.49
Control	267	3361	3001	1.12	Sym	3313	4040	0.82
Control	268	3473	2517	1.38	Sym	3283	2132	1.54
Control	269	2617	2566	1.02	Sym	2698	1861	1.45
Control	270	2879	1745	1.65	Sym	2872	1784	1.61
Control	271	3399	2073	1.64	Sym	3386	2822	1.2
Control	272	2132	820	2.6	Asym	3422	1209	2.83
Control	273	2083	525	3.97	Asym	2509	532	4.72
Control	274	2327	2424	0.96	Sym	3498	2070	1.69
Control	275	2877	1673	1.72	Sym	2563	3204	0.8
Control	276	2144	2023	1.06	Sym	2963	1743	1.7
Control	277	2416	1430	1.69	Sym	2427	1618	1.5
Control	278	3477	2133	1.63	Sym	2498	2839	0.88
Control	279	2425	1585	1.53	Sym	1980	1833	1.08
Control	280	3076	2875	1.07	Sym	2171	1227	1.77
Control	281	2552	1501	1.7	Sym	2376	1662	1.43
Control	282	3356	2010	1.67	Sym	2903	1910	1.52
Control	283	2761	3210	0.86	Sym	1894	1857	1.02
Control	284	3015	2201	1.37	Sym	2804	1575	1.78
Control	285	3165	3768	0.84	Sym	3162	1786	1.77
Control	286	2263	1451	1.56	Sym	3348	2499	1.34
Control	287	2498	1373	1.82	Sym	2263	2219	1.02
Control	288	2396	2178	1.1	Sym	2040	1594	1.28
Control	289	2083	1894	1.1	Sym	2142	1508	1.42
Control	290	1810	1885	0.96	Sym	3233	2141	1.51
Control	291	3446	3829	0.9	Sym	2438	2158	1.13
Control	292	2322	1814	1.28	Sym	3091	3434	0.9
Control	293	3098	1822	1.7	Sym	3334	1792	1.86
Control	294	2916	1576	1.85	Sym	2674	2815	0.95
Control	295	3419	2085	1.64	Sym	2575	1384	1.86
Control	296	2566	2086	1.23	Sym	3107	1661	1.87
Control	297	2845	2933	0.97	Sym	1815	1911	0.95
Control	298	2687	2020	1.33	Sym	2853	3206	0.89
Control	299	3386	3164	1.07	Sym	1983	1469	1.35
Control	300	2431	1677	1.45	Sym	2566	1974	1.3
Control	301	3262	1063	3.07	Asym	3370	653	5.16
Control	302	2820	2029	1.39	Sym	2061	1184	1.74
Control	303	3327	3577	0.93	Sym	2181	1212	1.8
Control	304	1885	1156	1.63	Sym	2261	1528	1.48
Control	305	2641	2257	1.17	Sym	3390	4084	0.83
Control	306	2258	1221	1.85	Sym	3306	3149	1.05
Control	307	2344	2232	1.05	Sym	2084	2063	1.01
Control	308	2023	1556	1.3	Sym	3431	2287	1.5
Control	309	3254	2141	1.52	Sym	1833	1255	1.46
Control	310	3076	1853	1.66	Sym	2666	2279	1.17
Control	311	3474	2316	1.5	Sym	2443	2395	1.02
Control	312	1932	455	4.25	Asym	3410	988	3.45
Control	313	2316	1379	1.68	Sym	2149	1990	1.08
Control	314	3233	1234	2.62	Asym	1949	725	2.69
Control	315	2668	3102	0.86	Sym	2959	2845	1.04
Control	316	2420	1862	1.3	Sym	2826	3405	0.83
Control	317	1859	1419	1.31	Sym	2425	1386	1.75

Control	319	2576	1198	2.15	Asym	2244	618	3.63
Control	320	2010	1489	1.35	Sym	2129	2476	0.86
Control	321	2216	1385	1.6	Sym	2879	2571	1.12
Control	322	2513	1323	1.9	Sym	2498	2715	0.92
Control	323	2014	1637	1.23	Sym	2880	1714	1.68
Control	324	2015	1113	1.81	Sym	2811	3470	0.81
Control	325	1893	2309	0.82	Sym	3465	2139	1.62
Control	326	2165	2005	1.08	Sym	1839	1372	1.34
Control	327	2095	1301	1.61	Sym	3332	1861	1.79
Control	328	2162	1272	1.7	Sym	3198	2518	1.27
Control	329	2183	2119	1.03	Sym	2214	1295	1.71
Control	330	1909	2194	0.87	Sym	1881	1529	1.23
Control	331	3166	562	5.63	Asym	3410	726	4.7
Control	332	2156	1597	1.35	Sym	3268	3890	0.84
Control	333	2488	2023	1.23	Sym	2019	1063	1.9
Control	334	2322	2580	0.9	Sym	1842	1007	1.83
Control	335	2747	668	4.11	Asym	2473	693	3.57
Control	336	2280	2151	1.06	Sym	2149	2362	0.91
Control	337	2030	1678	1.21	Sym	2161	1431	1.51
Control	338	3380	2364	1.43	Sym	3140	1847	1.7
Control	339	2784	2125	1.31	Sym	2291	1372	1.67
Control	340	3183	3701	0.86	Sym	2666	1578	1.69
Control	341	3017	3725	0.81	Sym	1947	1264	1.54
Control	342	2471	1350	1.83	Sym	2547	1481	1.72
Control	343	2746	2233	1.23	Sym	3378	2559	1.32
Control	344	2516	2029	1.24	Sym	1881	2266	0.83
Control	345	2908	1616	1.8	Sym	3113	2306	1.35
Control	346	1937	2176	0.89	Sym	2413	1319	1.83
Control	347	3162	3720	0.85	Sym	2398	2050	1.17
Control	348	2344	1605	1.46	Sym	3215	2115	1.52
Control	349	2471	2149	1.15	Sym	2066	1812	1.14
Control	350	2571	2521	1.02	Sym	1983	1819	1.09
Control	351	2697	3330	0.81	Sym	2056	1996	1.03
Control	352	2053	1755	1.17	Sym	3283	4004	0.82
Control	353	2996	1628	1.84	Sym	1842	1899	0.97
Control	354	3036	1755	1.73	Sym	2893	1819	1.59
Control	355	2837	2101	1.35	Sym	2678	1728	1.55
Control	356	3205	1978	1.62	Sym	2768	1883	1.47
Control	357	3371	2443	1.38	Sym	3209	2244	1.43
Control	358	3298	2407	1.37	Sym	2019	2103	0.96
Control	359	2754	1765	1.56	Sym	2992	1870	1.6
Control	360	2186	1401	1.56	Sym	2445	1287	1.9
Control	361	2144	1147	1.87	Sym	1947	1401	1.39
Control	362	2484	2435	1.02	Sym	2418	1406	1.72
Control	363	3332	1841	1.81	Sym	1988	1227	1.62
Control	364	1886	1179	1.6	Sym	2032	1441	1.41
Control	365	1856	1417	1.31	Sym	3276	3377	0.97
Control	366	2556	1618	1.58	Sym	2247	1469	1.53
Control	367	2579	1803	1.43	Sym	2197	2154	1.02
Control	368	3458	4217	0.82	Sym	2651	1828	1.45
Control	369	3305	1333	2.48	Asym	2929	1131	2.59
Control	370	2726	510	5.35	Asym	2767	650	4.26
Control	371	2213	661	3.35	Asym	3061	1451	2.11
Control	372	2933	1051	2.79	Asym	2628	597	4.4
Control	373	3473	3308	1.05	Sym	2301	1224	1.88
Control	374	2678	1927	1.39	Sym	2203	1412	1.56
Control	375	3266	1856	1.76	Sym	3481	3703	0.94
Control	376	3290	1437	2.29	Asym	1802	301	5.98
Control	377	3059	1924	1.59	Sym	2432	1632	1.49
Control	378	2314	1338	1.73	Sym	3074	1971	1.56
Control	379	2988	2165	1.38	Sym	2807	2095	1.34
Control	380	1918	1341	1.43	Sym	1846	1199	1.54
Control	381	3269	1816	1.8	Sym	3045	2436	1.25

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Control	383	2007	2113	0.95	Sym	2810	2266	1.24
Control	384	2972	1143	2.6	Asym	2273	706	3.22
Control	385	2997	1656	1.81	Sym	2318	2016	1.15
Control	386	2736	2682	1.02	Sym	3304	3059	1.08
Control	387	3147	3211	0.98	Sym	2632	1462	1.8
Control	388	3278	2062	1.59	Sym	2088	2088	1
Control	389	2709	2556	1.06	Sym	3485	2026	1.72
Control	390	2462	1431	1.72	Sym	1907	2192	0.87
Control	391	2014	2238	0.9	Sym	2170	1206	1.8
Control	392	2344	2894	0.81	Sym	2953	1834	1.61
Control	393	2276	1423	1.6	Sym	2572	1905	1.35
Control	394	3186	1780	1.79	Sym	2634	1678	1.57
Control	395	2460	1344	1.83	Sym	1913	1396	1.37
Control	396	3296	2273	1.45	Sym	2342	1661	1.41
Control	397	2266	2079	1.09	Sym	2320	1441	1.61
Control	398	2509	2302	1.09	Sym	1856	1395	1.33
Control	399	3045	2719	1.12	Sym	2310	1242	1.86
Control	400	2894	1929	1.5	Sym	2547	1781	1.43

Group	Pair cell No.	BrdU intensive value		Relative value	Pair cell type
		First cell	Second cell		
SOX9 KO	1	2263	2076	1.09	Sym
SOX9 KO	2	2265	1407	1.61	Sym
SOX9 KO	3	1995	759	2.63	Asym
SOX9 KO	4	2353	2064	1.14	Sym
SOX9 KO	5	3452	666	5.18	Asym
SOX9 KO	6	2265	1245	1.82	Sym
SOX9 KO	7	2288	1476	1.55	Sym
SOX9 KO	8	3371	2019	1.67	Sym
SOX9 KO	9	2418	526	4.6	Asym
SOX9 KO	10	2742	1490	1.84	Sym
SOX9 KO	11	2873	1763	1.63	Sym
SOX9 KO	12	1806	1196	1.51	Sym
SOX9 KO	13	2487	501	4.96	Asym
SOX9 KO	14	2063	1563	1.32	Sym
SOX9 KO	15	3353	1363	2.46	Asym
SOX9 KO	16	2928	2420	1.21	Sym
SOX9 KO	17	3458	3262	1.06	Sym
SOX9 KO	18	3455	1125	3.07	Asym
SOX9 KO	19	3196	701	4.56	Asym
SOX9 KO	20	3473	1219	2.85	Asym
SOX9 KO	21	2008	1746	1.15	Sym
SOX9 KO	22	2674	1267	2.11	Asym
SOX9 KO	23	2940	955	3.08	Asym
SOX9 KO	24	1985	1873	1.06	Sym
SOX9 KO	25	3159	532	5.94	Asym
SOX9 KO	26	1919	1654	1.16	Sym
SOX9 KO	27	1944	1690	1.15	Sym
SOX9 KO	28	2225	2781	0.8	Sym
SOX9 KO	29	2720	904	3.01	Asym
SOX9 KO	30	3128	1819	1.72	Sym
SOX9 KO	31	2147	1376	1.56	Sym
SOX9 KO	32	2365	2093	1.13	Sym
SOX9 KO	33	2220	376	5.91	Asym
SOX9 KO	34	2061	790	2.61	Asym
SOX9 KO	35	1951	1742	1.12	Sym
SOX9 KO	36	2186	694	3.15	Asym
SOX9 KO	37	2622	3085	0.85	Sym
SOX9 KO	38	2117	590	3.59	Asym
SOX9 KO	39	3205	2995	1.07	Sym
SOX9 KO	40	2308	1649	1.4	Sym
SOX9 KO	41	2224	530	4.2	Asym
SOX9 KO	42	2488	1693	1.47	Sym
SOX9 KO	43	3354	651	5.15	Asym
SOX9 KO	44	3237	2632	1.23	Sym
SOX9 KO	45	2436	768	3.17	Asym
SOX9 KO	46	3346	707	4.73	Asym
SOX9 KO	47	2514	567	4.43	Asym
SOX9 KO	48	2516	2374	1.06	Sym
SOX9 KO	49	2103	398	5.29	Asym
SOX9 KO	50	2724	2961	0.92	Sym
SOX9 KO	51	2782	2226	1.25	Sym
SOX9 KO	52	3396	665	5.11	Asym
SOX9 KO	53	2333	1356	1.72	Sym
SOX9 KO	54	3255	781	4.17	Asym
SOX9 KO	55	2523	695	3.63	Asym

SOX9 KO	57	3210	1466	2.19	Asym
SOX9 KO	58	2101	770	2.73	Asym
SOX9 KO	59	1904	1849	1.03	Sym
SOX9 KO	60	3319	871	3.81	Asym
SOX9 KO	61	2375	913	2.6	Asym
SOX9 KO	62	3177	2011	1.58	Sym
SOX9 KO	63	3292	3292	1	Sym
SOX9 KO	64	1910	1891	1.01	Sym
SOX9 KO	65	2109	359	5.88	Asym
SOX9 KO	66	2125	631	3.37	Asym
SOX9 KO	67	2767	1480	1.87	Sym
SOX9 KO	68	2733	759	3.6	Asym
SOX9 KO	69	2268	417	5.44	Asym
SOX9 KO	70	3011	625	4.82	Asym
SOX9 KO	71	2791	593	4.71	Asym
SOX9 KO	72	3062	1845	1.66	Sym
SOX9 KO	73	3156	2869	1.1	Sym
SOX9 KO	74	2811	2627	1.07	Sym
SOX9 KO	75	3306	568	5.82	Asym
SOX9 KO	76	2699	2966	0.91	Sym
SOX9 KO	77	2795	1616	1.73	Sym
SOX9 KO	78	2511	457	5.49	Asym
SOX9 KO	79	2273	951	2.39	Asym
SOX9 KO	80	3234	2327	1.39	Sym
SOX9 KO	81	2113	2401	0.88	Sym
SOX9 KO	82	2986	627	4.76	Asym
SOX9 KO	83	2516	669	3.76	Asym
SOX9 KO	84	2486	1471	1.69	Sym
SOX9 KO	85	3359	1030	3.26	Asym
SOX9 KO	86	2237	417	5.36	Asym
SOX9 KO	87	2214	788	2.81	Asym
SOX9 KO	88	2936	2159	1.36	Sym
SOX9 KO	89	1958	715	2.74	Asym
SOX9 KO	90	2105	1108	1.9	Sym
SOX9 KO	91	3321	554	5.99	Asym
SOX9 KO	92	2110	645	3.27	Asym
SOX9 KO	93	2843	512	5.55	Asym
SOX9 KO	94	2990	1027	2.91	Asym
SOX9 KO	95	2253	1959	1.15	Sym
SOX9 KO	96	3102	526	5.9	Asym
SOX9 KO	97	2414	757	3.19	Asym
SOX9 KO	98	3038	1362	2.23	Asym
SOX9 KO	99	3017	2453	1.23	Sym
SOX9 KO	100	2722	1047	2.6	Asym
SOX9 KO	101	2837	1659	1.71	Sym
SOX9 KO	102	3300	2025	1.63	Sym
SOX9 KO	103	3488	599	5.82	Asym
SOX9 KO	104	1932	1039	1.86	Sym
SOX9 KO	105	3082	822	3.75	Asym
SOX9 KO	106	3275	565	5.8	Asym
SOX9 KO	107	2304	2375	0.97	Sym
SOX9 KO	108	3156	3035	1.04	Sym
SOX9 KO	109	2036	693	2.94	Asym
SOX9 KO	110	3399	766	4.44	Asym
SOX9 KO	111	2125	372	5.71	Asym
SOX9 KO	112	2239	550	4.07	Asym
SOX9 KO	113	3275	769	4.26	Asym

SOX9 KO	115	2474	680	3.64	Asym
SOX9 KO	116	3327	1540	2.16	Asym
SOX9 KO	117	3463	633	5.47	Asym
SOX9 KO	118	3425	780	4.39	Asym
SOX9 KO	119	2932	726	4.04	Asym
SOX9 KO	120	1875	1187	1.58	Sym
SOX9 KO	121	3089	767	4.03	Asym
SOX9 KO	122	3447	3105	1.11	Sym
SOX9 KO	123	2461	2895	0.85	Sym
SOX9 KO	124	2823	1148	2.46	Asym
SOX9 KO	125	2499	497	5.03	Asym
SOX9 KO	126	2616	659	3.97	Asym
SOX9 KO	127	3416	3077	1.11	Sym
SOX9 KO	128	2730	688	3.97	Asym
SOX9 KO	129	2155	2535	0.85	Sym
SOX9 KO	130	2438	799	3.05	Asym
SOX9 KO	131	2618	3009	0.87	Sym
SOX9 KO	132	2193	1329	1.65	Sym
SOX9 KO	133	1901	799	2.38	Asym
SOX9 KO	134	2085	891	2.34	Asym
SOX9 KO	135	2775	658	4.22	Asym
SOX9 KO	136	3284	693	4.74	Asym
SOX9 KO	137	2323	1518	1.53	Sym
SOX9 KO	138	1965	1665	1.18	Sym
SOX9 KO	139	1817	318	5.72	Asym
SOX9 KO	140	2786	1601	1.74	Sym
SOX9 KO	141	3248	700	4.64	Asym
SOX9 KO	142	2140	1529	1.4	Sym
SOX9 KO	143	2682	491	5.46	Asym
SOX9 KO	144	3174	820	3.87	Asym
SOX9 KO	145	2511	734	3.42	Asym
SOX9 KO	146	2023	467	4.33	Asym
SOX9 KO	147	2787	555	5.02	Asym
SOX9 KO	148	1909	654	2.92	Asym
SOX9 KO	149	2215	441	5.02	Asym
SOX9 KO	150	2484	1645	1.51	Sym
SOX9 KO	151	2320	1441	1.61	Sym
SOX9 KO	152	2294	2868	0.8	Sym
SOX9 KO	153	2368	437	5.42	Asym
SOX9 KO	154	2523	1442	1.75	Sym
SOX9 KO	155	2212	737	3	Asym
SOX9 KO	156	2976	2420	1.23	Sym
SOX9 KO	157	1908	717	2.66	Asym
SOX9 KO	158	2558	1968	1.3	Sym
SOX9 KO	159	2340	391	5.98	Asym
SOX9 KO	160	2319	2577	0.9	Sym
SOX9 KO	161	2815	2289	1.23	Sym
SOX9 KO	162	2866	589	4.87	Asym
SOX9 KO	163	2595	595	4.36	Asym
SOX9 KO	164	3258	610	5.34	Asym
SOX9 KO	165	2934	3121	0.94	Sym
SOX9 KO	166	2950	552	5.34	Asym
SOX9 KO	167	2552	484	5.27	Asym
SOX9 KO	168	2322	2233	1.04	Sym
SOX9 KO	169	2024	556	3.64	Asym
SOX9 KO	170	2270	417	5.44	Asym
SOX9 KO	171	2948	1902	1.55	Sym

SOX9 KO	173	2187	464	4.71	Asym
SOX9 KO	174	2252	1586	1.42	Sym
SOX9 KO	175	3338	1087	3.07	Asym
SOX9 KO	176	2095	1455	1.44	Sym
SOX9 KO	177	2462	742	3.32	Asym
SOX9 KO	178	2492	427	5.84	Asym
SOX9 KO	179	1928	1236	1.56	Sym
SOX9 KO	180	2261	1222	1.85	Sym
SOX9 KO	181	1924	324	5.94	Asym
SOX9 KO	182	2382	1361	1.75	Sym
SOX9 KO	183	2923	3177	0.92	Sym
SOX9 KO	184	3106	1991	1.56	Sym
SOX9 KO	185	2613	622	4.2	Asym
SOX9 KO	186	1886	1266	1.49	Sym
SOX9 KO	187	2240	1931	1.16	Sym
SOX9 KO	188	2787	2034	1.37	Sym
SOX9 KO	189	2118	507	4.18	Asym
SOX9 KO	190	2772	2615	1.06	Sym
SOX9 KO	191	2447	486	5.04	Asym
SOX9 KO	192	1946	442	4.4	Asym
SOX9 KO	193	3140	791	3.97	Asym
SOX9 KO	194	2751	533	5.16	Asym
SOX9 KO	195	2295	2700	0.85	Sym
SOX9 KO	196	2135	1294	1.65	Sym
SOX9 KO	197	2369	705	3.36	Asym
SOX9 KO	198	3167	3519	0.9	Sym
SOX9 KO	199	3208	775	4.14	Asym
SOX9 KO	200	2306	546	4.22	Asym
SOX9 KO	201	2049	2134	0.96	Sym
SOX9 KO	202	3093	1875	1.65	Sym
SOX9 KO	203	1954	426	4.59	Asym
SOX9 KO	204	2201	548	4.02	Asym
SOX9 KO	205	3143	2709	1.16	Sym
SOX9 KO	206	2643	2566	1.03	Sym
SOX9 KO	207	3496	777	4.5	Asym
SOX9 KO	208	2048	383	5.35	Asym
SOX9 KO	209	2052	2160	0.95	Sym
SOX9 KO	210	3326	2004	1.66	Sym
SOX9 KO	211	1924	445	4.32	Asym
SOX9 KO	212	2673	1869	1.43	Sym
SOX9 KO	213	1967	594	3.31	Asym
SOX9 KO	214	2556	547	4.67	Asym
SOX9 KO	215	2180	586	3.72	Asym
SOX9 KO	216	2160	391	5.53	Asym
SOX9 KO	217	2531	616	4.11	Asym
SOX9 KO	218	1828	1374	1.33	Sym
SOX9 KO	219	3491	1283	2.72	Asym
SOX9 KO	220	2611	1718	1.52	Sym
SOX9 KO	221	2310	481	4.8	Asym
SOX9 KO	222	2125	515	4.13	Asym
SOX9 KO	223	2941	2163	1.36	Sym
SOX9 KO	224	3124	3124	1	Sym
SOX9 KO	225	2208	818	2.7	Asym
SOX9 KO	226	2930	2738	1.07	Sym
SOX9 KO	227	2566	544	4.72	Asym
SOX9 KO	228	2885	666	4.33	Asym
SOX9 KO	229	2854	2230	1.28	Sym

SOX9 KO	231	3131	705	4.44	Asym
SOX9 KO	232	2886	839	3.44	Asym
SOX9 KO	233	3249	1177	2.76	Asym
SOX9 KO	234	3148	645	4.88	Asym
SOX9 KO	235	2970	692	4.29	Asym
SOX9 KO	236	3459	3530	0.98	Sym
SOX9 KO	237	2331	1260	1.85	Sym
SOX9 KO	238	2847	1791	1.59	Sym
SOX9 KO	239	3477	2827	1.23	Sym
SOX9 KO	240	2888	2256	1.28	Sym
SOX9 KO	241	1824	335	5.45	Asym
SOX9 KO	242	3367	1115	3.02	Asym
SOX9 KO	243	3371	590	5.71	Asym
SOX9 KO	244	3203	589	5.44	Asym
SOX9 KO	245	2054	849	2.42	Asym
SOX9 KO	246	1930	326	5.92	Asym
SOX9 KO	247	2745	803	3.42	Asym
SOX9 KO	248	3396	3430	0.99	Sym
SOX9 KO	249	1885	503	3.75	Asym
SOX9 KO	250	2990	676	4.42	Asym
SOX9 KO	251	2507	1671	1.5	Sym
SOX9 KO	252	2878	1345	2.14	Asym
SOX9 KO	253	2660	468	5.68	Asym
SOX9 KO	254	1949	1611	1.21	Sym
SOX9 KO	255	2043	619	3.3	Asym
SOX9 KO	256	2999	1214	2.47	Asym
SOX9 KO	257	2672	507	5.27	Asym
SOX9 KO	258	3220	1063	3.03	Asym
SOX9 KO	259	2447	551	4.44	Asym
SOX9 KO	260	3158	579	5.45	Asym
SOX9 KO	261	2794	570	4.9	Asym
SOX9 KO	262	2880	2182	1.32	Sym
SOX9 KO	263	2558	565	4.53	Asym
SOX9 KO	264	3197	555	5.76	Asym
SOX9 KO	265	2318	2390	0.97	Sym
SOX9 KO	266	3385	2052	1.65	Sym
SOX9 KO	267	2348	958	2.45	Asym
SOX9 KO	268	2143	1499	1.43	Sym
SOX9 KO	269	3078	643	4.79	Asym
SOX9 KO	270	3121	581	5.37	Asym
SOX9 KO	271	2164	478	4.53	Asym
SOX9 KO	272	2947	1991	1.48	Sym
SOX9 KO	273	2880	3470	0.83	Sym
SOX9 KO	274	3435	1112	3.09	Asym
SOX9 KO	275	2817	1548	1.82	Sym
SOX9 KO	276	2999	578	5.19	Asym
SOX9 KO	277	1973	486	4.06	Asym
SOX9 KO	278	1995	525	3.8	Asym
SOX9 KO	279	3217	1313	2.45	Asym
SOX9 KO	280	3409	589	5.79	Asym
SOX9 KO	281	3385	2334	1.45	Sym
SOX9 KO	282	3168	578	5.48	Asym
SOX9 KO	283	2152	480	4.48	Asym
SOX9 KO	284	2487	1764	1.41	Sym
SOX9 KO	285	2264	1470	1.54	Sym
SOX9 KO	286	2814	763	3.69	Asym
SOX9 KO	287	2426	967	2.51	Asym

SOX9 KO	289	2123	367	5.79	Asym
SOX9 KO	290	2325	1845	1.26	Sym
SOX9 KO	291	3159	2149	1.47	Sym
SOX9 KO	292	2239	468	4.78	Asym
SOX9 KO	293	3266	628	5.2	Asym
SOX9 KO	294	2537	471	5.39	Asym
SOX9 KO	295	1967	739	2.66	Asym
SOX9 KO	296	2301	465	4.95	Asym
SOX9 KO	297	3444	2359	1.46	Sym
SOX9 KO	298	2432	619	3.93	Asym
SOX9 KO	299	2166	744	2.91	Asym
SOX9 KO	300	2978	3463	0.86	Sym
SOX9 KO	301	2597	1882	1.38	Sym
SOX9 KO	302	1880	2112	0.89	Sym
SOX9 KO	303	2324	571	4.07	Asym
SOX9 KO	304	2215	879	2.52	Asym
SOX9 KO	305	3367	626	5.38	Asym
SOX9 KO	306	2813	2813	1	Sym
SOX9 KO	307	3414	575	5.94	Asym
SOX9 KO	308	3052	681	4.48	Asym
SOX9 KO	309	2147	364	5.9	Asym
SOX9 KO	310	3224	1966	1.64	Sym
SOX9 KO	311	2489	2146	1.16	Sym
SOX9 KO	312	2268	1482	1.53	Sym
SOX9 KO	313	2270	532	4.27	Asym
SOX9 KO	314	2698	2286	1.18	Sym
SOX9 KO	315	3302	938	3.52	Asym
SOX9 KO	316	2255	688	3.28	Asym
SOX9 KO	317	2508	1754	1.43	Sym
SOX9 KO	318	1979	333	5.95	Asym
SOX9 KO	319	2919	1813	1.61	Sym
SOX9 KO	320	1998	1665	1.2	Sym
SOX9 KO	321	2600	699	3.72	Asym
SOX9 KO	322	3411	2030	1.68	Sym
SOX9 KO	323	2077	453	4.59	Asym
SOX9 KO	324	2005	719	2.79	Asym
SOX9 KO	325	2828	3288	0.86	Sym
SOX9 KO	326	1964	569	3.45	Asym
SOX9 KO	327	3001	503	5.97	Asym
SOX9 KO	328	2570	2274	1.13	Sym
SOX9 KO	329	1970	1515	1.3	Sym
SOX9 KO	330	2268	986	2.3	Asym
SOX9 KO	331	2868	2109	1.36	Sym
SOX9 KO	332	3231	921	3.51	Asym
SOX9 KO	333	3148	621	5.07	Asym
SOX9 KO	334	2091	1413	1.48	Sym
SOX9 KO	335	3431	3036	1.13	Sym
SOX9 KO	336	3458	2071	1.67	Sym
SOX9 KO	337	3091	611	5.06	Asym
SOX9 KO	338	3436	1909	1.8	Sym
SOX9 KO	339	2905	1002	2.9	Asym
SOX9 KO	340	2073	776	2.67	Asym
SOX9 KO	341	2216	511	4.34	Asym
SOX9 KO	342	2104	1559	1.35	Sym
SOX9 KO	343	3376	675	5	Asym
SOX9 KO	344	2143	515	4.16	Asym
SOX9 KO	345	3035	1029	2.95	Asym

SOX9 KO	347	1867	791	2.36	Asym
SOX9 KO	348	2934	1298	2.26	Asym
SOX9 KO	349	1942	641	3.03	Asym
SOX9 KO	350	2276	2557	0.89	Sym
SOX9 KO	351	2768	1600	1.73	Sym
SOX9 KO	352	2657	970	2.74	Asym
SOX9 KO	353	3078	1202	2.56	Asym
SOX9 KO	354	3325	1127	2.95	Asym
SOX9 KO	355	2306	1830	1.26	Sym
SOX9 KO	356	2922	1207	2.42	Asym
SOX9 KO	357	3055	1934	1.58	Sym
SOX9 KO	358	3395	605	5.61	Asym
SOX9 KO	359	3237	1713	1.89	Sym
SOX9 KO	360	2930	2325	1.26	Sym
SOX9 KO	361	3055	934	3.27	Asym
SOX9 KO	362	2621	904	2.9	Asym
SOX9 KO	363	1960	875	2.24	Asym
SOX9 KO	364	2161	363	5.95	Asym
SOX9 KO	365	2479	497	4.99	Asym
SOX9 KO	366	2605	544	4.79	Asym
SOX9 KO	367	2490	2830	0.88	Sym
SOX9 KO	368	3437	693	4.96	Asym
SOX9 KO	369	3467	2375	1.46	Sym
SOX9 KO	370	2041	1633	1.25	Sym
SOX9 KO	371	3064	2236	1.37	Sym
SOX9 KO	372	3152	1668	1.89	Sym
SOX9 KO	373	2003	415	4.83	Asym
SOX9 KO	374	2855	1133	2.52	Asym
SOX9 KO	375	2669	1076	2.48	Asym
SOX9 KO	376	2915	3005	0.97	Sym
SOX9 KO	377	3411	886	3.85	Asym
SOX9 KO	378	3119	1824	1.71	Sym
SOX9 KO	379	2338	649	3.6	Asym
SOX9 KO	380	1950	441	4.42	Asym
SOX9 KO	381	2780	825	3.37	Asym
SOX9 KO	382	3040	924	3.29	Asym
SOX9 KO	383	2047	660	3.1	Asym
SOX9 KO	384	2570	1962	1.31	Sym
SOX9 KO	385	3343	557	6	Asym
SOX9 KO	386	2127	650	3.27	Asym
SOX9 KO	387	2203	979	2.25	Asym
SOX9 KO	388	2312	1217	1.9	Sym
SOX9 KO	389	3126	1461	2.14	Asym
SOX9 KO	390	2029	372	5.46	Asym
SOX9 KO	391	2176	491	4.43	Asym
SOX9 KO	392	1828	459	3.98	Asym
SOX9 KO	393	3145	1210	2.6	Asym
SOX9 KO	394	2846	1143	2.49	Asym
SOX9 KO	395	2447	1786	1.37	Sym
SOX9 KO	396	2490	565	4.41	Asym
SOX9 KO	397	1872	755	2.48	Asym
SOX9 KO	398	2777	731	3.8	Asym
SOX9 KO	399	2992	656	4.56	Asym
SOX9 KO	400	2753	1047	2.63	Asym