

Supplement Figure 1. A population of Lgr5-positive cells, identified by immunofluorescence for Lgr5, was identified in the SNU638 gastric cell line (panels A and B), original magnification 200X.

Supplement Figure 2. EGFP-positive epithelial cells in the mouse stomach are located in the base of antral type gastric glands (indicated by the arrows). EGFP represents a surrogate marker for Lgr5-positive cells in this mouse model. Immunofluorescence images for EGFP in panels A and B were obtained at 200X and 400X original magnifications, respectively.

Supplement Figure 3. Upper panels: A. Immunofluorescence images for CD34 positive cells in lamina propria (panel B, red stain, diamond end arrow) and Lgr5-positive cells in glandular epithelium (panel C, green stain, long thick arrow), do not show co-localization of CD34 and Lgr5 (panel A, arrows). Bottom panels: D. Immunofluorescence images for CD34 (panel E, red stain, diamond end arrow) and Lgr5 (panel F, green stain, long thick arrow), do not show co-localization of CD34 and Lgr5 in lamina propria cells (panel D, arrows). Original magnification 400X.

Supplement Figure 4. Vimentin expression in Lgr5+ cells in lamina propria but not in LPECs. Upper panels: A. Immunofluorescence images for vimentin (panel B, red stain, long thin arrow) and Lgr5 (panel C, green stain, long thick arrow), do not show co-localization of vimentin in Lgr5-positive epithelial cells (panel A, short arrows). Bottom panels: D. Immunofluorescence images for vimentin (panel E, red stain, long thin arrow) and Lgr5 (panel F, green stain, long thick arrow), show one Lgr5-positive cell in the lamina propria with co-localization of vimentin (panel D, short arrow). Nuclei are stained with DAPI. Original magnification 400X.

Supplement Figure 5. Expression of CD44 in Lgr5+ epithelial cells. A. Immunofluorescence images for both CD44 (red) and Lgr5 (green), show co-localization in one Lgr5+ epithelial cell (long thin arrow and inset). B. Immunofluorescence images for both CD44 (red) and Lgr5 (green), show co-localization in one Lgr5+ epithelial cells (long thin arrow and inset), while most CD44 positive cells in the glandular epithelium are Lgr5-negative (multiple short arrows). Nuclei are stained with DAPI. Original magnification 400X.

Supplement Figure 6: Expression of CD44 in Lgr5+ cells in lamina propria. A. Immunofluorescence for CD44 (red), with one cell in the lamina propria indicated by the arrow in the inset panel. B. Immunofluorescence image for both CD44 (red) and Lgr5 (green), show co-localization of CD44 and Lgr5 in the same cell represented in the inset (A). Nuclei are stained with DAPI. Original magnification 400X.

Supplement Figure 7. Rare Lgr5-positive cells in the lamina propria do not show co-localization with CD45. Upper panels: A. Immunofluorescence images for CD45 (panel B, red stain, long thin arrow) and Lgr5 (panel C, green stain, long thick arrow), show co-localization of CD45 in one Lgr5-positive lamina propria cell (panel A, short arrows). Bottom panels: D. Immunofluorescence images for CD45 (panel E, red stain, long thin arrow) and Lgr5 (panel F, green stain, long thick arrow), show one Lgr5-positive cell in the lamina propria without co-localization of CD45 (panel D, short arrow). Images were obtained from gastric antral mucosa of case SR67. Nuclei are stained with DAPI. Original magnification 400X.