Supplementary Table 1. Summary of the effects of CLDN19 and CLDN16/19 co-expression upon permeability of Mg^{++} in LLC-PK1 cells.

Construct	vector	CLDN19	CLDN19+CLDN16 co-expression
P_{Mg} (10^{-6} cm/s)	5.132±0.085	3.958±0.049	4.174±0.054

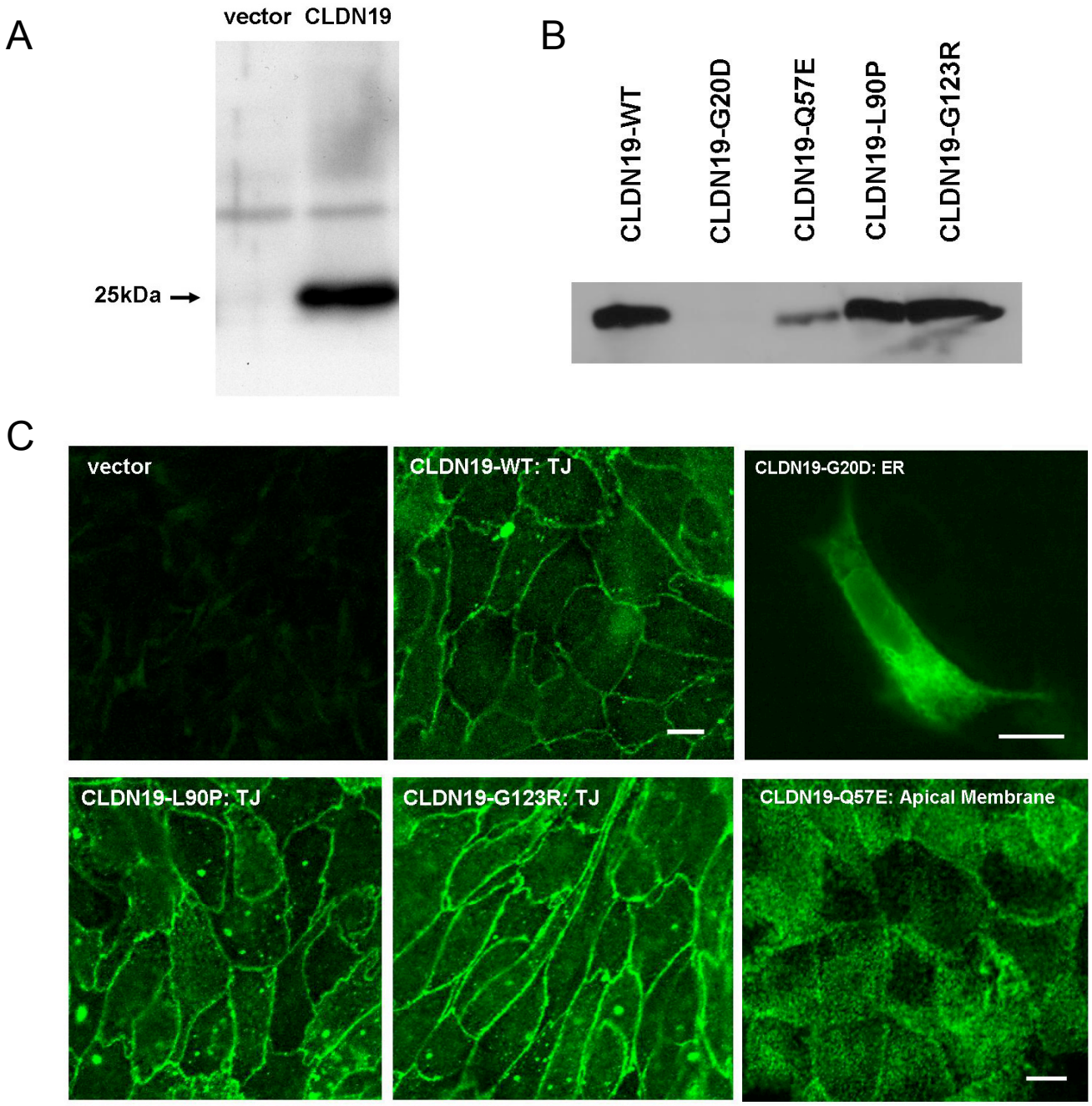

Figure S1. Expression of CLDN19 in LLC-PK1 cells. (A) Western immunoblot showing the electrophoretic mobility of CLDN19. (B) Western immunoblot of expression of CLDN19 mutants. Notably, CLDN19-G20D mutant protein has a low expression level (seen as a weak band after prolonged exposure). (C) Confocal microscopy showing the subcellular localization of CLDN19 and CLDN19 mutants. The confinement of CLDN19-G20D in the ER suggests that it is not properly folded, and tends to be less stable and susceptible to degradation. TJ: tight junction; ER: endoplasmic reticulum. Bar, 10μm.

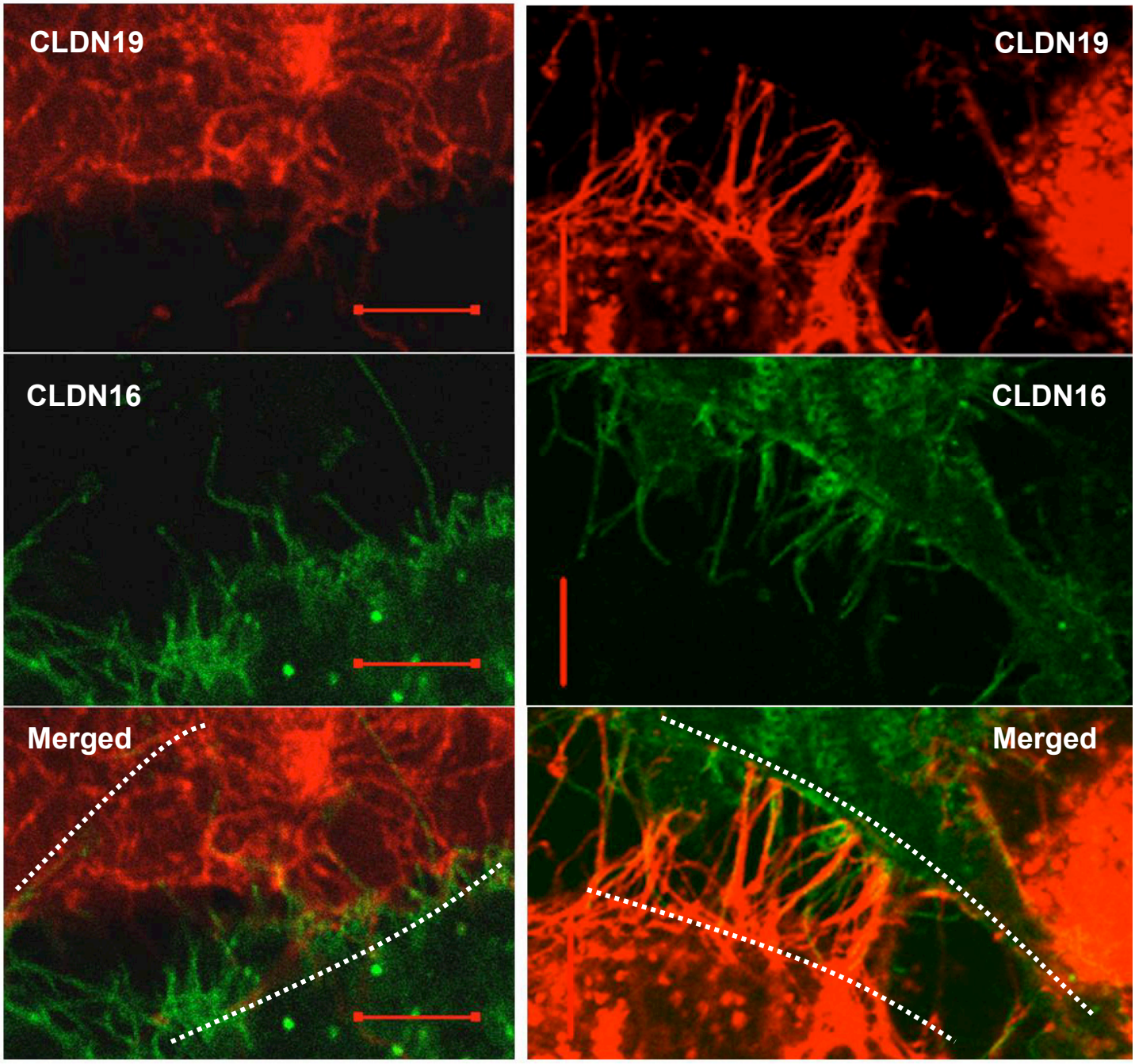

Figure S2. Confocal microscopy showing the subcellular localization of CLDN19 and CLDN16 at areas of cell-cell contact. L fibroblasts expressing CLDN19 and CLDN16 respectively were co-cultured to confluence. The areas of cell-cell contact were examined on the same plane and delineated using white dotted lines. Note the lack of co-localization between CLDN19 and CLDN16 at these areas, indicating the lack of heterotypic interaction between the pair of claudins. Bar, 10μm.