Figure S1. Expression of TGFβ1 in subchondral bone from three groups. The expression of TGFβ1 was assessed by immunofluorescence staining with a TGFβ1 antibody. In the full cartilage group, (a) there was almost no activated TGFβ1 (red) expression in the extracellular matrix and (b) it was counterstained with DAPI and (c) merged. (d) A small amount of activated TGFβ1 (red) was expressed in the partial cartilage group and (e) it was counterstained with DAPI and (f) merged. (g) A large amount of activated TGFβ1 (red) was expressed in the full defect group and (h) it was counterstained with DAPI and (i) merged. In the partial cartilage group, the yellow dotted line represents the boundary between cartilage and subchondral bone. Scale bars, 250 μm. DAPI, 4',6-diamidino-2-phenylindole; Merge, merging of TGFβG and DAPI in an image; TGFβ, transforming growth factor β.

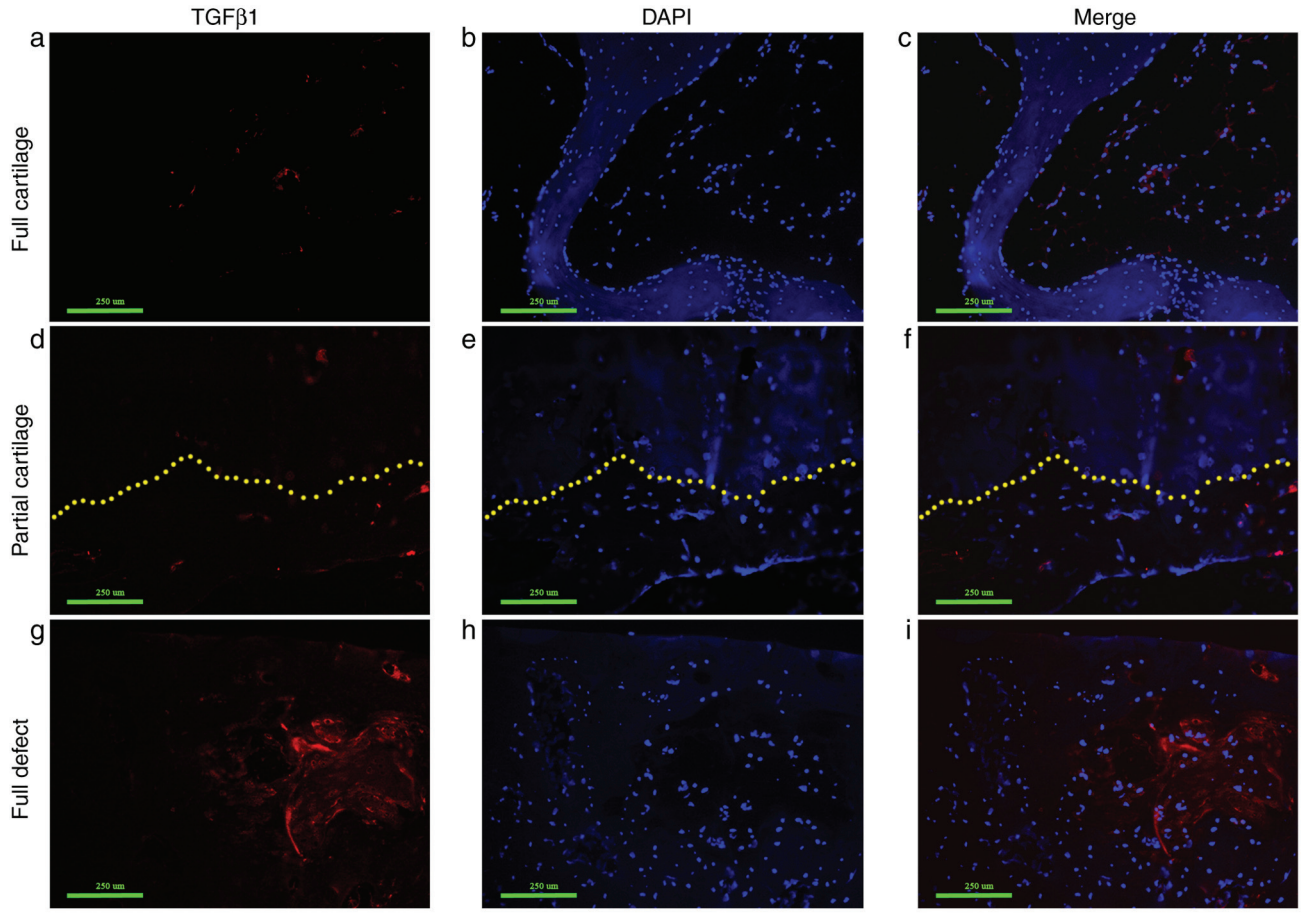

Figure S2. Activation of TGFβ signaling of chondrocytes in the full and partial cartilage groups. The activation of TGFβ signaling was detected by (A) immunohistochemical staining with a p-Smad2/3 antibody to test TGFβ signaling (B) and immunofluorescence staining for Adamts4 (red). The positive cells that stained brown in the full cartilage group were only located in (a) the HZ of cartilage, while in the partial cartilage group they were located in (d) the IZ and HZ. (b) and (e) are magnification of the super layer in (a) and (d) respectively, while (c) and (f) are magnification of the deep layer in (a) and (d) respectively. Scale bar in Ab and c and Ae and f, 100 μm; in Aa and d, 1,000 μm; in B, 250 μm. DAPI, 4',6-diamidino-2-phenylindole; SZ, superficial zone; IZ, intermediate zone; HZ, hypertrophic zone; TGFβ, transforming growth factor β; p, phosphorylated; Adamts4, a disintegrin and metalloproteinase with thrombospondin motifs.