**Fig. S3.** The results of immunoprecipitation-immunoblotting using swapped molecules of desmoglein (Dsg)1/Dsg2 and Dsg3/Dsg2 studies for RPs of Dsg1 and Dsg3. The left panels showed positive reactivity with each recombinant protein by immunoblotting using anti-His tag mAb. The lanes of Dsg1, Dsg3 and Dsg2 are for full-length RPs of Dsg1, Dsg3 and Dsg2, respectively. The lanes of extracellular (EC)1–EC5 are for domain swapped RPs. (A) The patient serum did not react with any RPs of Dsg1, including full length RP. (B) The patient serum reacted with RPs of both full-length RP and EC1 domain containing RP of Dsg3.