Escherichia coli) was confirmed by SDS-PAGE and Western blotting; then purified by Ni^{+} affinity chromatography. Chickens were immunized with BVDV-E2 protein, and IgY antibodies were extracted from egg yolk by PEG-6000. The peak titer of anti-BVDV-E2-IgY was 1:128,000 after the fifth immunization. IgY-based enzyme-linked immuno sorbent assay (ELISA) and immunochromatographic assay (ICA) were further developed. Coincidence of ELISA and ICA test with RT-PCR was 95.45 and 90.91%, respectively. The anti-BVDV-E2 IgY could be used in routine screening of BVDV infection. Besides, it can also be applicable while licensing and/or using live vaccines; screening of imported products containing bovine serum and strong surveillance of BVDV outbreaks.

Preparation of Chicken IgY against BVDV recombinant E2 protein for developing ELISA and ICA for BVDV detection.