**The Caption of the Figures**

**FIGURE 1. (a)** Sample W5 after three days of observation. The CPE observed as a grape-like cluster. Pointer indicated cleft around monolayer. **(b)** The control of the MDBK cell line after three days of observation.

**FIGURE 2.** The colony of the transformant after 18 hours incubation.

**FIGURE 3.** The confirmation of inserted gene by gel agarose electrophoresis. The length of the inserted gene is about 325 bp.

**FIGURE 4.** Analysis of electropherogram which indicated the point of mutation (arrows). The fragment consists of about 325 bp. The yellow background stated the process of an initial sequence of dye terminator.

**FIGURE 5**. The result of the phylogenetic tree of the sample (W5) and the references genes. Sample W5 grouped in BHV-1.2.

**Figure 6.** The whole genome of BHV-1. Glycoprotein D gene was in the US (Unique Short) region. The amplification of 325 bp of glycoprotein D was made using two pairs of primer (nested PCR). The amplified gene was inserted into pGEMT and cloned into a competent cell. The plasmid was cut using ScaI restriction enzyme before subjected to sequencing.

**Figure 7. (a)**The ribbon-like structure protein of subtype 1.1 (accession no. KU198480 as reference sequence). The sample was very similar to subtype 1.2. The yellow highlighted showed ß-sheet structure, red showed helix structure, and green showed a loop structure. **(b)** The ribbon-like structure of the sample. L99 is the same cutting area in AluI and TaqI between sample and references gene.

**TABLE 1.** The primer used in the study

**TABLE 2.** The nucleotide polymorphism analysis

**TABLE 3.** The results of enzyme restriction analysis using in silico AluI and TaqI