CLONING OF SOME TRANSCRIPTS OF MAREK'S DISEASE VIRUS VACCINE STRAIN CVI-988 IN LYTICALLY INFECTED CELLS

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A cDNA library was made from Marek's disease virus (MDV) vaccine strain CVI–988 to get information about the prevention mechanism of MD vaccines. At first, poly-adenylated RNA was extracted from lytically infected chicken embryo fibroblasts (CEF). This was observed on dotted filters detected by a cloned MDV genome that the virus-dependent poly-adenylated RNA became largest in amount at 48 hours after infection. Subsequently the poly-adenylated RNA, which extracted from the CEF, was used as the template for cloning. The synthesized cDNA was ligated with a BstXI-non-parindromic adptor and BstXI cut-plasmid (pCDM8). About 1000,000 transformants (*E. coli*, MC1061/p3) were obtained as the cDNA libraoy, and 200,000 colonies of that library were surveyed with a colony hybridization technique to isolate the cDNA for the MDV genome. With sequential surveys, 14 clones of cDNA were isolated. When the molecular size of poly-adenylated RNA was checked with Northern blots using the isolated cDNA clone as a probe, 2 or more bands were observed with cDNA. From this result, it was suggested that several transcripts could be produced from the same area of the gene. Finally, 2 clones were sequenced with the dideoxy-method, and it appeared that the genetic codes for the proteins of MDV existed in the isolated cDNA clones. These results suggested that much information could be obtained by analysis of cDNA libraries.