to test sera collected at the time of challenge for the presence of both Env and Gag IgG antibodies. The protection was apparently independent of the Env and Gag IgG antibodies. The absence of protective immunity in several animals with anti-Env antibody may have indicated that these antibodies were not directed against the virus-neutralizing epitopes. The absence of the Env antibody in most of the protected mice may have been due to a late development of this antibody, since it has been shown that even in successfully immunized animals, neutralizing antibodies develop rather after than before the challenge with FV (Earl et al, 1986). These data demonstrated that in DNA-immunized animals the presence or absence of either Env or Gag IgG antibodies – as determined in the present study – was not a reliable indicator whether resistance to challenge had developed. These findings might be interpreted as a proof that cell-mediated immunity played a decisive role in the protection induced. It will be the purpose of future experiments to determine the mechanism of protection induced by FV DNA vaccines in different phases of the immunization process.

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