ERRATA

Adherence of *Giardia lamblia* Trophozoites to Int-407 Human Intestinal Cells

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Volume 8, no. 2, p. 258–265, 2001. Page 259: Figure 1 should appear as shown below.

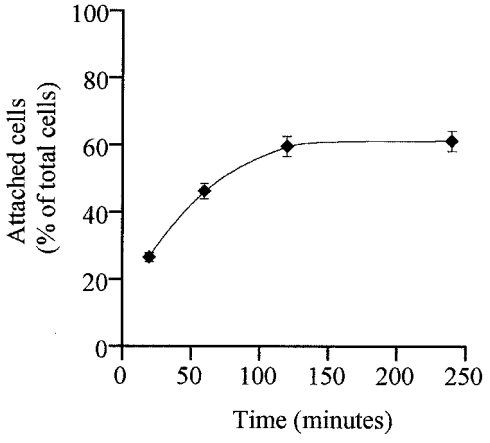

FIG. 1. Time course of attachment of *G. lamblia* trophozoites to Int-407 cell monolayers under standard assay conditions (cell ratio 1:1, 37°C, 5% CO_2, and 95% air). Standard errors of the mean (vertical bars) were calculated from data of three experiments ($P < 0.01$).

Differentiation of Two Bovine Lentiviruses by a Monoclonal Antibody on the Basis of Epitope Specificity

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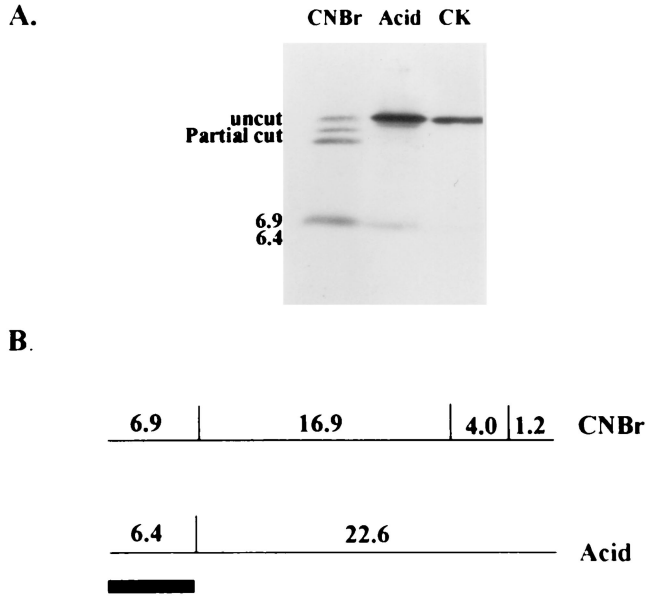

FIG. 2. Chemical cleavage of the capsid BIV protein and identification of the positive reaction bands by monoclonal antibody. (A) Western blot of acid and CNBr-cleaved capsid BIV. Five micrograms of capsid BIV protein was incubated overnight with 75% formic acid at 37°C. Another 5 μg was incubated overnight at room temperature with CNBr (10 mg/ml) in 70% formic acid. All samples were solubilized in SDS-PAGE sample buffer and analyzed by Tricine gel electrophoresis. The molecular mass (in kilodaltons) of each of the peptides is indicated. CK, uncut control; uncut, uncleaved capsid protein; Partial cut, partially digested fragments. (B) Physical map of the 29-kDa BIV capsid protein. The location of the single Asp-Pro linkage cleavable by acid and the molecular masses (in kilodaltons) of the two fragments are indicated; so are the locations of three methionine residues and the molecular masses of the four fragments generated by the CNBr cleavage. The positions of the peptides that reacted positively are indicate by the filled box.

Comparison of the amino acid sequences (6, 12) in capsid proteins of BIV and JDV has revealed that the identity at the first 60-amino-acid region is only 25%, compared to 75% in the rest of the capsid region (Fig. 3).

DISCUSSION

The amino acid sequences of capsid proteins are highly similar among all lentiviruses. Finding an epitope that is unique to only one virus has been difficult. The recombinant capsid protein of JDV has been found to cross-react with BIV polyclonal antisera. This result was expected, because previous Western immunoblot analyses using native JDV proteins showed antigenic cross-reactivity with BIV antisera and vice versa, indicating that the capsid proteins of these two bovine lentiviruses share common antigenic epitopes (17). The lentivirus capsid proteins contain a conserved epitope, the major homology region, to which the antigenic cross-reactivity of lentiviruses can be attributed.

The present study produced monoclonal antibodies to detect virus-specific capsid protein. Three antigenic epitopes within the capsid protein were identified using these monoclonal antibodies. Negative reactions of C-terminal amino residues of the capsid protein with all the antibodies further indicated that the antigenic sites were located on the N terminus of the protein. Previous studies using capsid deletion mutant and polyclonal antibody identified one major epitope located near the carboxyl terminus of the capsid protein (2). Thus, the capsid protein appears to have at least four epitopes. Because as few as 18 amino acid can make up one epitope, the 240-amino-acid capsid protein could potentially have more than 10 epitopes.