

Analysis of a macronuclear 36B antigen in *Paramecium caudatum*

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SUMMARY

Ciliates have two functionally distinct nuclei, a germinal micronucleus and a somatic macronucleus. The macronucleus is responsible for gene transcription but it is lost at each sexual cycle, whereas the micronucleus transmits the genetic information to the next sexual generation. To identify and characterize protein components of the two kinds of nuclei, we produced several kinds of monoclonal antibodies against nuclear antigens in *Paramecium caudatum*. In this study, we examined a macronuclear 36B antigen by electrophoresis and Western blotting. Western blot analysis of proteins separated by one-dimensional SDS-PAGE showed that two bands (55- and 70-kDa) were identified with the anti-36B antibody in samples solubilized in SDS sample buffer, while only the 70-kDa band was detected in samples solubilized in sample buffer for isoelectric focusing. In Western blot analysis of proteins separated by two-dimensional SDS-PAGE, one spot at the size of 70-kDa was identified with the anti-36B antibody. We will purify the 70-kDa protein in the spot to determine its partial amino acid sequence.