

A 76-kDa protein specific to the invasion tip of the endonuclear symbiotic bacterium *Holospora obtusa*

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The gram negative bacterium *Holospora obtusa* is a macronucleus-specific symbiont of the ciliate *Paramecium caudatum*. The invasion tip of an infectious form of this bacterium produces three proteins of 89, 76 and 63 kDa. We have already developed a monoclonal antibody against the 89-kDa protein and showed that this protein has important functions in infection. In the present study, we developed a monoclonal antibody specific for the 76-kDa protein. This antibody reacted with the invasion tip of the infectious form of *H. obtusa*, but not with the reproductive form of *H. obtusa* or the infectious form of a micronucleus-specific form of *H. obtusa*.