Fifty sera from zebu foetal calves were examined by sodium sulphite turbidity test, agar gel double diffusion, immunoelectrophoresis and radial immunodiffusion procedures for gamma-globulin, and by an inhibition test for J antigen. Only 6% of the sera were positive for gamma-globulin, whereas 86% showed the presence of J antigen or J-inhibiting substance. It is suggested that these substances are not responsible for the toxicity associated with some batches of pooled foetal calf sera against lymphoblast tissue culture cells infected with T. parva.