A survey was conducted to estimate the prevalence of dairy herds in the United Kingdom that were infected with paratuberculosis. This report details the serological study carried out in support of this objective. Herds were selected at random from throughout the UK and 353 farmers were invited to participate. 136 (39%) of the contacted farmers were recruited. Farms with a previous history of clinical paratuberculosis were more likely to join the study. The herd size ranged from 57 to 413 milking cows. In each herd all animals of three years of age and above were sampled (mean sample size of 101). In total blood samples from 13,691 cows were tested using a commercially available enzyme-linked immunosorbent-assay (ELISA) to test for the presence of antibody to *Mycobacterium avium* subspecies *paratuberculosis* (Map). The results of the survey will be reported and related to the other parts of this study that involved faecal culture and examination of the bulk tank milk for the presence of Map.