

# SEROLOGY

Information for veterinary surgeons about screening of serum samples for infectious diseases, viruses and allergies.

## EQUINE INFECTIOUS ANAEMIA SEROLOGY

We run a cELISA test for the screening of serum samples for the detection of Equine Infectious Anaemia, for routine breeding and sales purposes. The assay is run daily Monday to Friday and same day results are provided for samples that arrive at the laboratory by 11am. We offer a special price for combined EIA and EVA testing which can be performed on a single serum sample (10ml plain tube). Samples showing a positive EIA titre will be referred for further quantification with Coggins test. Our assay is not suitable for horses needing clearance for export purposes or horses showing clinical signs of disease, and these must be submitted to the VLA for the Coggins EIA test. In the UK, EIA is notifiable by law under the Infectious Diseases of Horses Order 1987.

## EQUINE VIRAL ARTERITIS SEROLOGY

We run an in-house EVA ELISA assay. This assay is for routine screening of horses that show no clinical signs of infection, e.g. for pre-breeding or sales requirements. The assay is run daily Monday to Friday and same day results are provided for samples that arrive at the laboratory by 11am. We offer a special price for combined EIA and EVA testing which can be performed on a single serum sample (10ml plain tube). Samples showing a positive EVA titre will be referred for further quantification with serum neutralisation test. Our tests are not suitable for samples from horses needing clearance for export purposes or horses showing clinical signs of disease and these must be submitted to the VLA for serum neutralisation test. In the UK, EVA is notifiable by law under the Equine Viral Arteritis Order 1995.

## RHODOCOCCUS EQUI SEROLOGY

Our quantitative enzyme-linked immunosorbent assay (ELISA) detects antibodies to *R. equi* virulence associated protein A (VapA) strain and to the non-VapA strain in serum (clotted) samples and provides measured titres. Results will not prove active infection but will indicate the degree of exposure to and antibody production against the virulent and non-virulent strains. In the presence of clinical signs, a high titre to the VapA strain may indicate the need for treatment with specific antibiotic combinations, at an early stage. Currently, we consider serum antibody titres <1:1000 to indicate low-grade challenge, titres of 1:1000–1:5000 to indicate moderate challenge and titres of >1:5000 to indicate high challenge. Experience suggests that foals with active *R. equi* infections usually have titres >1:5000.

Foals that have received *R. equi* hyperimmune plasma transfusions will have consequential titres in the range 1:320–1:640, which persist for up to 21 days. Our assay may be used to help monitor circulating *R. equi* antibody levels and therefore potential passive protection following transfusion.

## FEED ALLERGEN PRECIPITIN

Feed Allergen Precipitin tests are available and may be useful in cases of allergic dermatological or enteric disease. We can test serum samples against our panel of standard equine food allergens. Alternatively, representative samples of all the feed constituents should be sent for specific allergen manufacture, in addition to a serum sample.