

## IN VIVO BIOSAFETY TESTING

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Mouse, rat, and hamster antibody production (MAP, RAP, and HAP) testing are immunologically-based procedures for the simultaneous detection and identification of murine viral contaminants in biological specimens. Using highly susceptible natural hosts (i.e., mice, rats, or hamsters) and sensitive and specific serologic assays, Charles River Laboratories offers a comprehensive screening method for biological contaminants.

Virus Antibody Free (VAF) mice, rats, or hamsters are inoculated by multiple routes with a test article and held in isolation for four weeks. Serum samples are collected and tested for virus-specific antibodies using the enzyme-linked immunosorbent assay (ELISA). Detection of specific antibodies is tantamount to identifying a virus in the test article.

Antibody Production testing can be supplemented with an intracranial challenge to test for the presence or absence of lymphocytic choriomeningitis virus (LCMV) in the test article. This method of LCMV detection is more sensitive than the serologically-based assay. Charles River can perform all Antibody Production testing under GLP or non-GLP study conditions. GLP studies include significant QA oversight and document review upon test conclusion.

Charles River also offers a variety of *in vivo* safety tests, which are required by federal regulatory agencies, in support of investigational and new drug filings. The General Safety Test and the Inapparent Virus Assay are industry standards which we regularly perform under GLP compliance.

It has been well documented that accidental infections or contaminations with indigenous rodent viruses have hampered biomedical research. To be used safely in research and in compliance with government regulations, biologics derived from rodent tissues and cell cultures must be tested to guarantee that they are free of extraneous rodent viruses. Ensure the validity of your results; choose Charles River to help you meet your research goals.

For details regarding sample submission, please call our Technical Assistance Department at 1-800-338-9680.

### Charles River screens for the following pathogens:

- Sendai virus
- Pneumonia virus of mice
- Mouse hepatitis virus
- Minute virus of mice
- Mouse parvovirus
- Theiler's murine encephalomyelitis virus (GD-7)
- Reovirus (Type 3)
- Epizootic diarrhea of infant mice
- Mouse pneumonitis virus
- Ectromelia
- Polyoma virus
- Mouse adenovirus
- Lymphocytic choriomeningitis virus
- Mouse cytomegalovirus
- Mouse thymic virus
- Hantaan virus
- Prospect Hill virus
- Lactate dehydrogenase virus\*

\*Serum levels of lactate dehydrogenase are quantified to confirm the presence or absence of contaminating LDV within a test article.

