The injection of transplantable tumors, hybridomas, cultured cell lines, or other biological materials into rodents can pose a health risk to animals and personnel. These biological materials have been a source of mouse hepatitis virus, mousepox, and other significant disease agents at research facilities. Moreover, rodent pathogens can be carried and propagated by non-rodent (e.g., human) cell lines when these cell lines have been propagated in rodents or rodent biological materials.

Biological materials should be evaluated for rodent pathogenic microorganisms by polymerase chain reaction (PCR) or mouse antibody production (MAP) tests. The major disadvantage of MAP testing is the 6 to 8 weeks required to obtain results. The Research Animal Diagnostic Laboratory (RADIL) at the University of Missouri offers a PCR-based alternative to MAP testing, the Infectious Microbe PCR Amplification Test or IMPACT, which is a panel of PCR assays that detects murine pathogens. Typically, IMPACT testing requires 2 vials of each sample with a minimum of $1 \times 10^7$ cells/vial and a turnaround time of 7-10 business days.

If your protocol involves the injection of transplantable tumors, hybridomas, cultured cell lines, or other biological materials into rodents, please provide the Division of Laboratory Animal Health (DLAH) or the director of the relevant facility in which pertinent animals will be housed the name of the cell line(s), source, test, and results of tests performed to evaluate the presence of rodent pathogenic microorganisms. If the cells are not of rodent origin and have not been tested for the presence of rodent pathogens, please confirm that the materials (cells) to be used have not been propagated in rodents or rodent biological materials. Alternatively, please contact DLAH or the director of the relevant facility in which pertinent animals will be housed to make arrangements to have biological specimens tested before use. Approval for the use of biological materials in animals housed at the Division of Laboratory Animal Health or other relevant facilities will only be given after the Director of DLAH or the director of other relevant facilities has assessed the test results to determine their adequacy.

REVISED: December 18, 2012
REAFFIRMED: October 4, 2021