University of Notre Dame
Institutional Animal Care and Use Committee
Policy for the Testing of Tumors and Cell Lines

Purpose

Research rodents are easily infected by a number of viruses and bacteria which may produce disease and/or significantly alter experimental data. Many infectious agents of rodents can be carried in cell lines and tissues which, when implanted into naive host animals, may serve as a source of infection. To prevent contamination of established rodent colonies in facilities and subsequent disruption of research, it is required that all biologic materials (tumors, tissues, and cell lines) be screened for adventitious rodent pathogens and other microbial contaminants prior to their inoculation into animals. Written confirmation of serological testing and the microbial status of such materials must be supplied to the IACUC and FLSC at the time of protocol submission and prior to use *in vivo*.

Cell lines purchased through ATCC require testing for murine pathogens. The ATCC website[1] specifically states that they do not do testing of their cell lines although most murine cell lines have been screened for Ectromelia virus at NIH and ATCC.[2] Accordingly, if researchers intend to inoculate cell lines obtained from the ATCC into mice and return the mice to non-quarantined facilities with other animals, the inoculum should be tested either in house or commercially elsewhere[3].

For those cell lines previously passaged through non-FLSC rodent hosts, grown on an untested rodent feeder cell line, or in media that contained an untested rodent cell feeder line, testing is required if test results are not available or complete.

Testing is required for any untested hybridoma lines or ascites fluid or cell lines re-passaged in a non-FLSC rodent host. When a previously untested cell line or biologic is thawed for current use, it must also be tested for murine pathogens. Older (before 2000) frozen back biologics have a greater chance of contamination due to increased presence of rodent diseases in colonies historically maintained in animal facilities[4].

Testing costs are the responsibility of the researcher. FLSC does not perform any in house testing. Testing is available from the following:

IDEXX RADIL
Serology Services
4011 Discovery Drive
Columbia, MO 65201
http://www.radil.missouri.edu/pcrmice.html

1. http://www.atcc.org/support/faqs/8bb9a/Testing%2bcell%2blines%2bfor%2bviruses%2bbefore%2buse-250.aspx
2. Buller, R.M.L., et al. (1987) Observations on the replication of Ectromelia virus in mouse-derived cell lines: Implications for epidemiology of mousepox. Lab. Animal Sci. 37:28
3. http://www.atcc.org/support/faqs/baecf/MAP%2bmouse%2bantibody%2bproduction%2btesting-170.aspx
4. N.C. Peterson. From Bench to Cageside: Risk Assessment for Rodent Pathogen Contamination of Cells and Biologics. ILAR Journal. Vol.49/3. 2008