

The Institutional Animal Care and Use Committee

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

POLICY STATEMENT

Ascites Production in Mice

In vitro techniques for the production of monoclonal antibodies (MAbs) offer numerous options for the generation of antibodies. Still, documented studies indicate that in some cases the in vitro methods may be insufficient and the use of ascities method may be justified.

If situations exist in which animals are required for the production of MAbs, efforts must be directed at implementing procedures targeted at reducing pain and distress [it can be assumed that in vivo methods of MAb production are potentially distressful, because, if allowed to progress without intervention, death will ensue].

Currently accepted procedures include:

1. Thorough justification for the use of mice and the ascites method vs. alternative, in vitro methods.
2. Procedures (injections, observations, harvest) should be performed by skilled individuals.
3. Maximum volume of 0.2 ml pristine is used to prime the mouse.
4. Animals should be weighed the day of inoculation. Thereafter, animals should be checked/observed and weighed at least daily.
5. Healthy mice may be harvested up to 3 times, with the initial harvest occurring when the body weight increases 20-25% over baseline....a four-day period from the first harvest to the last harvest should be targeted.
6. Slow weight gain or cloudy/hemorrhagic ascites in animals should be watched carefully and euthanasia considered.

Various methods may be utilized to harvest/collect the antibody rich ascitic fluid. Details of harvest methods are found in the *Training and Procedural Manual for Animal Use at UMMC* available at the following link:

<http://iacuc.umc.edu/Manual/TrainingProceduralManualforAnimalUseatUMMC.pdf> ,
Section VI, Formulary/Technical. Additionally, guidelines may be found at
<http://oacu.od.nih.gov/ARAC/AscitesProd.pdf>

IACUC Approved 1/15/02

Updated: 7/1/04; 6/17/08; 2/17/09

Reviewed: 9/20/11