Producing Monoclonal Antibodies in Mice

Investigators are encouraged to seek in vitro sources of monoclonal antibodies as a replacement to using mice as an ascites model. Justification for not using in vitro sources is required in the UCAR protocol. In addition, if an ascites model must be employed please consider using retired breeders in order to most efficiently use and conserve animals.

The following general guidelines have been developed by UCAR for investigators who plan to produce monoclonal antibodies in mice.

1. If pristane is used, no more than 0.2 ml may be injected IP, unless justified by the investigator and approved by UCAR.
2. Ascites usually develops within a few days of hybridoma cell administration. A lab member must monitor mice for ascites development at least three times a week after hybridoma injection to determine the ideal time to perform paracentesis (tap).
3. Once ascites develops, a lab member must perform an abdominal paracentesis (tap) before ascites produces clinical signs such as decreased activity, difficulty walking, hunched posture and respiratory distress.
4. Once ascites develops, monitoring must be increased to at least daily to determine the time for either additional paracentesis and/or euthanasia.
5. Only two survival taps are allowed, with a third tap being done immediately followed by euthanasia.
6. Taps may be done without chemical restraint. A smaller gauge (20g) needle is encouraged when possible. A needle larger than an 18g sterile hypodermic needle may not be used.

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