SHARED SERVICES CENTRE
RESEARCH COUNCILS UK

NC3Rs
National Centre for the Replacement, Refinement and Reduction of Animals in Research

Animal welfare standards expected of suppliers of antibodies to Research Council establishments

Wherever possible, antibodies should be sourced from RCUK contracted (preferred) suppliers. Exceptions should be justified on scientific grounds and approved by the local Ethical Review Process (ERP).

Regardless of where they are located, all suppliers of antibodies must operate in a manner consistent with the principles of the UK 'Animals (Scientific Procedures) Act 1986' (UK Government 1986), including the following key principles – compliance should be confirmed by the ERP:

- There must be no reasonable and practicable alternative method of producing the antibody (e.g. *in vitro*) that might replace animal use.
- The antibody production protocols must be minimal in terms of the number of animals used, choice of species and severity of techniques applied, compatible with the production of satisfactory antibody.
- The protocols should conform to the Home Office guidance 'Antibody Production: Principles for Protocols of Minimal Severity' (Home Office 2000).
- The space allocations per animal should meet or exceed those in the Home Office 'Code of Practice for the Housing and Care of Animals Used in Scientific Procedures' (Home Office 1989)

In addition, all suppliers must implement the principles in the funding bodies' document 'Responsibility in the Use of Animals in Bioscience Research: Expectations of the Major Research Council and Charitable Funding Bodies' (BBSRC/DEFRA/MRC/NC3Rs/NERC/Wellcome Trust 2008). This includes housing the animals in appropriate social groups, with environmental enrichment, in high-quality living spaces conducive to good animal welfare.

In vivo production of monoclonal antibodies (mAbs) by the ascites method is unacceptable on animal welfare grounds and no longer scientifically necessary, except in rare cases (European Centre for the Validation of Alternative Methods 1998). The use of ascitic animals for mAb production *in vivo* should only be permitted when *in vitro* attempts at mAb production have failed or the use of animals is considered justified for specific diagnostic or therapeutic products. If *in vitro* production methods are not considered to be suitable, a full explanation should be given and approved by the ERP.

References

UK Government (1986) Animals (Scientific Procedures) Act 1986. London: HMSO. http://www.archive.official-documents.co.uk/document/hoc/321/321-xa.htm

Home Office (2000) Antibody Production: Principles for Protocols of Minimal Severity. London: Home Office (online). http://www.homeoffice.gov.uk/science-research/animal-research/

Home Office (1989) Code of Practice for the Housing and Care of Animals Used in Scientific Procedures. London: HMSO. http://www.homeoffice.gov.uk/science-research/animal-research/

European Centre for the Validation of Alternative Methods (1998) Statement on the Scientific Acceptability and Practical Availability of *In Vitro* Methods for the Production of Monoclonal Antibodies. Ispra: ECVAM http://ecvam-dbalm.jrc.it/publication/MAb_statement.pdf

BBSRC / DEFRA / MRC / NC3Rs / NERC / Wellcome Trust (2008) Responsibility in the use of animals in bioscience research: Expectations of the major research council and charitable funding bodies. www.nc3rs.org.uk/responsibility