

Animal Bioresource in Japan

Bio-Resource of Human and Animal-Derived Cell Materials

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Abstract :

The Cell Engineering Division of RIKEN BioResource Center is a not-for-profit public "cell bank" that accepts donations and deposits of human and animal cell materials developed by the life science research community. We examine, standardize, amplify, preserve, and provide cell materials to scientists around the world. The major cell materials used around the world have been cultured cell lines, i.e., immortalized cells. Most human cell lines are derived from tumor cells. There is no doubt that the demand for these cell lines will never cease in the field of biology. In addition, stem cell lines such as embryonic stem (ES) cells and induced pluripotent stem (iPS) cells are of great value in current biology and medical science. Thus, we are extensively collecting such stem cell lines, aiming at contributing to the fields of developmental biology and transplantation/regenerative medicine. In addition, the demand for primary cells has recently increased. To meet this demand, we have started the banking of primary human cells including somatic stem cells, such as umbilical cord blood cells and cultured mesenchymal cells. The staff of the Cell Engineering Division conduct not only the banking of cell materials, but also research and development relating to cell materials, such as the establishment of novel human and animal-derived cell lines and the development of new technology to utilize cell materials.

Key Word :

cell bank, cell line, ES cells, iPS cells, stem cell bank

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