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**Technical specification for somatic cell cloning of pig, cattle,
sheep and goat**

猪牛羊体细胞克隆技术规范

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

3.1 reconstructed embryo

3.2 Somatic cell cloning

4 Requirements

4.1 Pig somatic cell cloning

4.1.1 Porcine oocyte collection

4.1.1.1 Preparation before collection

4.1.1.2 Follicle selection

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed and coordinated by the China National Institute of Standardization.

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Technical Specifications for Somatic Cell Cloning of Pigs, Cattle and Sheep

1 Scope

This document specifies the requirements for porcine, bovine and ovine somatic cell cloning

and describes the corresponding verification methods.

This document is applicable to the somatic cell cloning technology operations of pigs, cattle and sheep, and can be used as a reference for other animals.

2 Normative references

GB/T 24863

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 reconstructed embryo

The embryo is formed by the fusion of somatic cells and enucleated oocytes after enucleation, nuclear injection and fusion operations.

3.2 Somatic cell cloning

A somatic cell (nuclear donor cell) is transplanted into an enucleated oocyte (recipient cell), resulting in an oocyte that is identical to the nuclear donor cell.

The operation technology of reconstructing embryos (3.1) with the same somatic genetic material.

4.1.1.1 Preparation before collection

4.1.1.1.1 On the day of collection, an appropriate amount of porcine oocyte maturation culture medium should be prepared and a maturation culture plate should be prepared.

The liquid formula is shown in Appendix A A.1.

4.1.1.1.2 After the mature culture plate is prepared, it should be placed in the cell culture incubator for equilibrium before use.

4.1.1.1.3 Physiological saline, egg flushing solution, culture dishes and microscope stage thermostat should be preheated to 38.5°C~39°C. See A.2.

4.1.1.2 Follicle selection

4.1.1.2.1 Fresh ovaries without cysts or congestion and with follicles between 3 mm and 6 mm in diameter should be selected and kept at 38.5°C to 39°C.