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Generation of a laminopathies-specific iPSC line EHTJUi005-A-3 with homozygous knockout of the LMNA gene by CRISPR/Cas9 technology

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Abstract

LAMIN A/C, encoded by the LMNA gene, supports the normal structure of the cell nucleus and regulates the connection between the nucleus and the cytoskeleton as a component of the nucleus envelope. The loss of expression and function of the LMNA gene would lead to the occurrence of congenital muscular dystrophy and Emery-Dreifuss muscular dystrophy which are collectively named as laminopathies. Here, we report a human induced pluripotent stem cell (iPSC) line (EHTJUi005-A-3) generated from a wild iPSC (EHTJUi005-A) with homozygous knockout of the gene LMNA through CRISPR/Cas9. This iPSC line provides a useful research model for studying laminopathies disease.

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