FUJIFILM Cellular Dynamics, Inc.
525 Science Drive
Madison, WI 53711 USA

Toll Free in US (877) 320-6688 / (608) 310-5100 **T**
(608) 310-5101 **F**
fcdi-support@fujifilm.com **E**
www.fujifilmcdi.com **W**

Biosafety Documentation:

iCell® Cardiomyocytes (RYR2 E2311D)

Catalog Number(s): C1207
Donor ID Number: 01434.1209

Cell Source and Biosafety Level Classification

iCell® Cardiomyocytes (RYR2 E2311D) are human cells differentiated from a master bank of stably induced pluripotent stem (iPS) cells. FUJIFILM Cellular Dynamics, Inc. (FCDI), classifies these cells as Biosafety Level 1 (BSL1) based on the United States Centers for Disease Control and Prevention publication: *Biosafety in Microbiological and Biomedical Laboratories*. We recommend handling iCell Cardiomyocytes (RYR2 E2311D) to the biosafety guidelines applicable in your region.

Reprogramming

The iPS cell lines were generated from human fibroblasts through ectopic expression of reprogramming factors (i.e. Oct4, Sox2, Nanog, Lin28) by retroviral transfection. The retroviral particles used in this process were obtained from cell culture supernatant of HEK 293T cells transfected with plasmids containing the reprogramming factor genes as well as the coding regions of the gag, pol and env retroviral genes. No retroviral gene expression was detected by PCR in the starting fibroblast material or the iPS cell line, confirming the iPS cell line cannot spontaneously product infectious virus.

Engineering

The iPS cell clones were engineered using nuclease-mediated methodologies to exhibit blasticidin resistance under the control of a cardiomyocytes-specific promotor. Puromycin resistance was also included in the targeting vector to allow selection of the iPS cell clones.

The resulting engineered iPS cell line was further engineered to introduce the E2311D and silent flanking mutations through nuclease and transposon-mediated methodologies.

None of the engineering vectors used contain oncogenes.

Infectious Disease Testing

The iPS cell line is negative for HBV, HCV, HIV-1, and HIV-2.