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Biosafety Documentation:

iCell® Microglia

Catalog Number(s): C1138
Donor ID Number: 01279.730
Genotype: *MECP2* (Knockout)

Cell Source and Biosafety Level Classification

iCell® Microglia 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*. Handle the cells according to the biosafety guidelines applicable in your region.

Reprogramming

The iPS cell lines were generated from human peripheral blood through ectopic expression of reprogramming factors (e.g., *OCT4, SOX2, NANOG, LIN28, KLF4, L-MYC, SV40LT)* by episomal transfection. Following reprogramming, no episomal plasmids were detected by PCR in the iPS cell line.

Engineering

The iPS cell line was engineered to knock out the Methyl CpG Binding Protein 2 (*MECP2*) gene directly following serine 49 and prior to the methyl CpG Binding domain in the MeCP2 protein. Puromycin resistance was included in the targeting vector to allow selection of the iPS cells.

None of the engineering vectors used contain oncogenes.

Infectious Disease Testing

The incoming peripheral blood was tested and non-reactive for HBV, HCV, HIV-1, HIV-2 and syphilis.