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Biosafety Documentation: *iCell® Microglia*

Catalog Number(s): C1133
Donor ID Number: 01279.431
Genotype: SNCA (A53T)

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 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 exhibit neomycin resistance under the control of a neuronal-specific promoter. Puromycin resistance was included in the targeting vector to allow selection of the iPS cells.

The iPS cell line was further engineered with a G to A point mutation at nucleotide position 209 in the synuclein alpha (*SNCA*) gene resulting in an alanine to threonine change at amino acid 53 in the alpha-synuclein protein.

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.