Washington University in St. Louis
Office of Technology Management

SIX2-GFP REPORTER IPSC LINE (SUBJECT TO GE - GFP LICENSE)

Humphreys, Benjamin

Hardin, Clyde "Frank"

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Researchers used CRISPR/Cas9-mediated gene targeting to knock in a GFP-P2A cassette into the ATG of the Six2 gene in human BJFF.6 induced pluripotent stem cells. The cells exhibit GFP expression in Six2+ cells when induced to differentiate towards the renal lineage. Six2 expression marks a progenitor population of cells in the metanephric mesenchyme that differentiate into all epithelial cells of the kidney with the exception of collecting duct. Therefore this cell line is useful for studying the biology of Six2+ progenitors, such as through FACS isolation of the cells from kidney organoids, or through continuous monitoring of the progenitor cell niche via time-lapse microscopy.