StemEdit

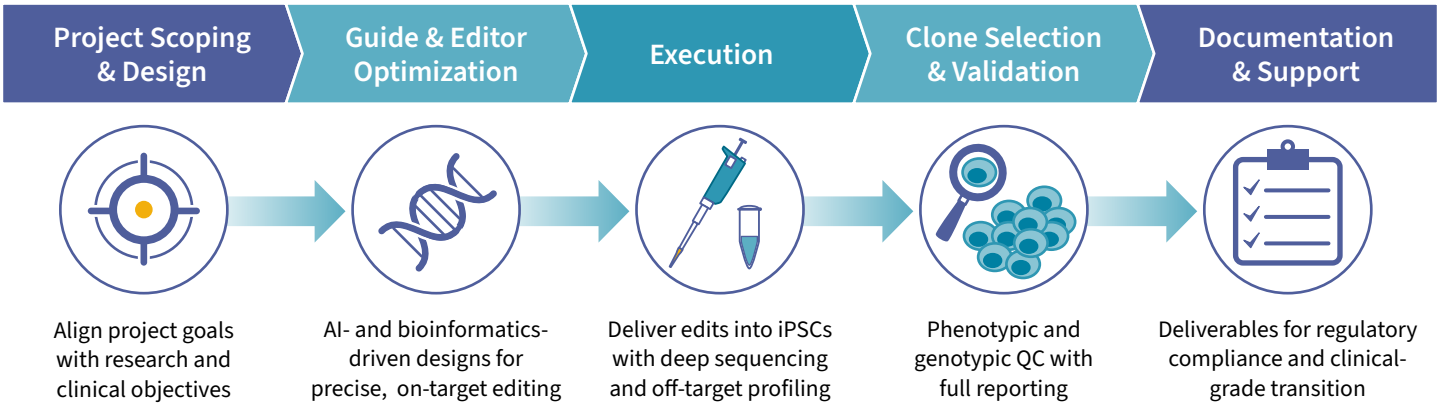
REPROCELL
stemgent
A REPROCELL BRAND

AI-designed Gene Editing Service & Landing Pad Technology
Ready-to-use Hypoimmune Cell Lines

StemEdit uses a *de novo* AI-designed RNA-guided CRISPR nuclease engineered for precise genome editing in human cells, combining high editing efficiency with reduced off-target activity and lower predicted immunogenicity.

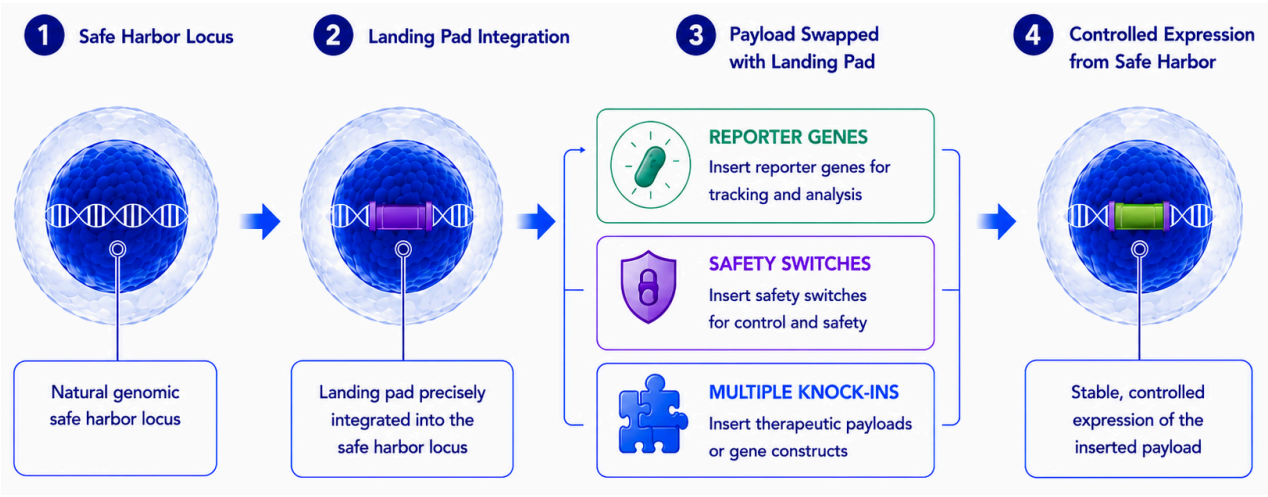
StemEdit Service
Research & Clinical Projects

StemEdit supports projects from early design through validated edited clones, reducing the technical gaps between discovery research and clinical development.



Landing Pad Technology

A reusable genomic docking site integrated into a safe harbor locus, enabling efficient gene insertion and replacement.



- Faster development timelines
- Precise safe-harbor integration
- Stable long-term gene expression
- Flexible plug-and-play payload exchange
- For research & translational workflows
- No license required

https://www.reprocell.com/gene-editing-services/stemedit

Unless otherwise noted, REPROCELL, Inc. and REPROCELL, Inc. logo, and all other trademarks are the property of REPROCELL Inc.
© 2026 REPROCELL, Inc. All rights reserved.

REPROCELL
bioserve • stemgent • alvetex • biopta

StemEdit Products

StemEdit offers ready-to-use hypoimmune iPSC lines for research applications. Derived from StemRNA™ Clinical iPSCs, these B2M/CIITA knockout lines are designed to support pre-clinical allogeneic cell therapy development by reducing immune recognition.

StemEdit OC-1 Protein, an AI-designed Cas alternative, enables efficient gene editing and is available in research-use and GMP-grade formats.

REPROCELL Cat. No.	Description	Size
RCRP052	**StemEdit hiPSC B2M/CIITA DKO RPC-LLF-34-F3**	1 × 10^6 cells
RCRP051	**StemEdit hiPSC CIITA KO RPC-LLF-34-F3**	1 × 10^6 cells
RCRP053	**StemEdit hiPSC B2M KO RPC-LLF-34-F3**	1 × 10^6 cells
03-0020	**StemEdit OC-1 Protein**	130 µg (10 µL)
03-0020-GMP	**GMP StemEdit OC-1 Protein**	130 µg (10 µL)

Recommended Reagents: Culture medium: NutriStem™ hPSC XF Culture Medium; Substrate: iMatrix-511 Stem Cell Culture Substrate
The StemRNA parent line is also available as research or clinical version. Please inquire: info-us@reprocell.com

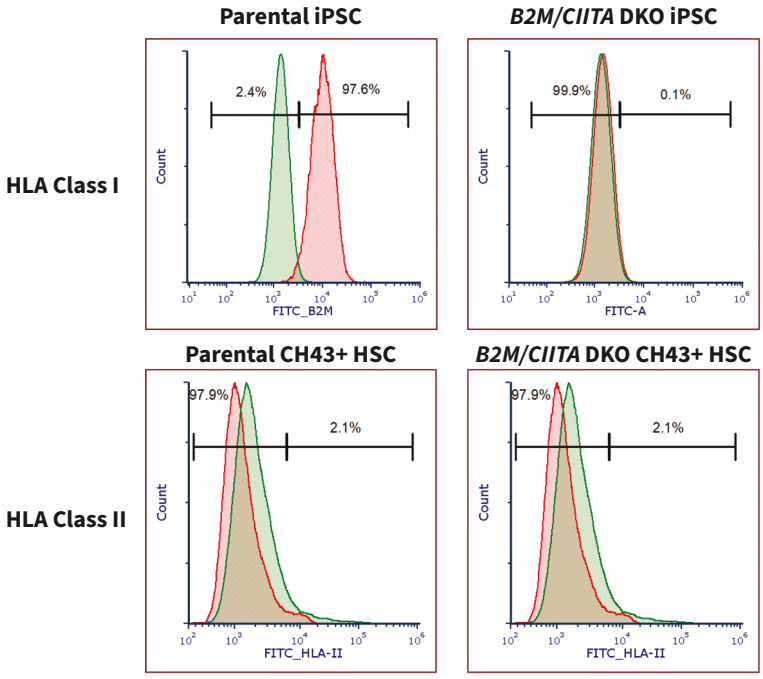
Pluripotency

B2M/CIITA double knockout cells (iPSC DKO line #RCRP052) were stained for common positive and negative pluripotency markers and analyzed by immunofluorescence microscopy and flow cytometry, demonstrating that the cells maintain high pluripotency.

Mutation Analysis

Gene	Seq Result
HLA Class I	Absent
HLA Class II	Absent

Knockout of the *B2M* and *CIITA* genes in the DKO iPSC line #RCRP052 was confirmed by NGS. Functional loss of β2-microglobulin (B2M product) was validated by flow cytometry in iPSCs, and functional loss of CIITA was verified in iPSC-derived HSCs. Flow cytometry shows that double knockout of *B2M/CIITA* eliminates both HLA Class I and Class II surface expression.



Cell Line Characterization



Assay	Result
Karyotype	Normal (46 XX)
Bacteria and Fungi	Negative
SSEA4, Oct4, Nanog, Sox2	Positive
SSEA1	Negative
Virus	Negative
STR (CellCheck)	Pass