Applied StemCell

Genome editing *in vitro* and *in vivo*

iPSC/ESC

Custom Services & Products

www.appliedstemcell.com

Applied StemCell

Genome editing *in vitro* and *in vivo*

iPSC Generation, Disease Modeling & Correction, Differentiation and Neurotoxicity Screening

One-stop solution for all your stem cell needs; affordable, high quality services and products for disease modeling & drug screening

Why work with ASC?

- **Global leader** in stem cell and gene editing technologies
- **ISO 9001 and ISO 13485 certified** quality management system
- **In-licensed** iPSC and CRISPR/Cas9 technologies
- **Unique** for advanced genetic modifications/ corrections in stem cells, including patient-derived stem cells
- **Flexible project modules** to customize service deliverables to fit your specific requirements
- **Complete toolset of services and products** for every aspect of your stem cell needs

Available Now!
Fully characterized & approved MASTER iPSC Lines suitable for genome engineering & as isogenic control iPSCs

New! Custom *In Vivo* Assays to test your stem cells in animal models, including behavioral testing, *in vivo* & *in vitro* functional assays

Contents of this Brochure:

Footprint-Free iPSC Generation Service

ASC has successfully reprogrammed hundreds of high quality iPSCs from both healthy and disease patient samples, and other mammalian species, using in-licensed reprogramming technology from iPSC Academia (Japan) and highly optimized proprietary protocols.

- iPSC reprogramming from PBMC, fibroblasts, CD34+ blood cells
- Integration-free reprogramming: suitable for drug discovery and cell therapy applications
- High reprogramming efficiency
- Feeder-free culture protocols

Services includes:

- Cell recovery
- Transfection with reprogramming vectors
- Single cell cloning and expansion
- Characterization of iPSCs with customizable options

Deliverables and Timeline:

- At least two clones with 2 vials per clone
- Characterization of iPSCs with customizable options
- Dedicated project managers'
- Milestone and final report

Timeline: 2-3 months

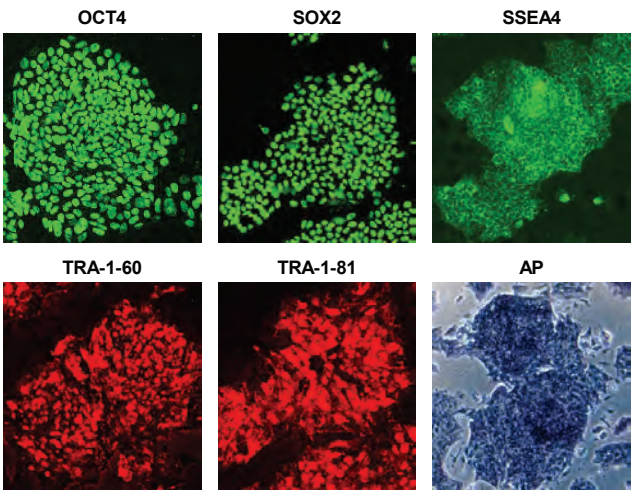


Figure: Human iPSCs were generated from dermal fibroblasts from a patient with a rare disorder, using feeder-free, proprietary protocols. The reprogrammed iPSC clones were characterized by pluripotency marker staining for OCT4, SOX2, SSEA4, TRA-1-60, TRA-1-81, and alkaline phosphatase (AP).

EZ-iPSC Generation Kit - Retroviral & Episomal

Reprogram your own human iPSCs from broad range of tissues and cell types using our well-optimized high efficiency protocols, for a cost-effective alternative.

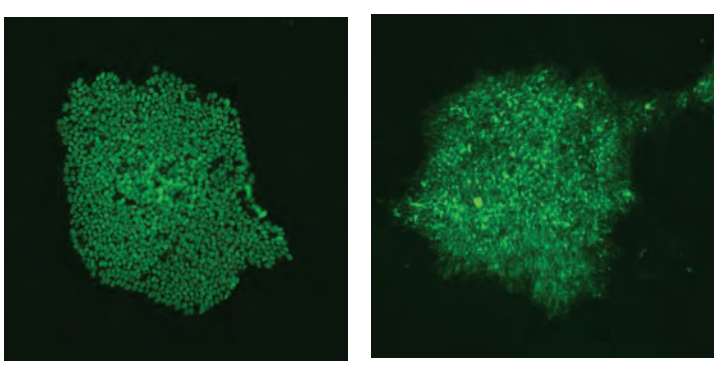


Figure: iPSC colonies reprogrammed using episomal kit, ASK-3013 expressing OCT4 & TRA-1-60

- Retrovirus Kit uses VSV-G pseudotyped retrovirus for high reprogramming efficiency (0.05-0.5%)
- The Episomal Kit enables transgene-free, virus-free reprogramming using easy-to-use and high efficiency protocols (0.05-1.0% efficiency)
- Usable with feeder and feeder-free conditions

EZ-iPSC Generation Kits		
ASK-3012	EZ-iPSC Generation Kit (Retrovirus)	$950.00
ASK-3013	EZ-iPSC Generation Kit (Episomal)	$595.00

Custom iPSC Generation Service: https://www.appliedstemcell.com/research/services/stem-cell-services/stem-cell-generation

Custom iPSC Generation Service: https://www.appliedstemcell.com/products/stem-cell-research/stem-cell-generation

iPSC Genome Editing & Disease Modeling Services

ASC can engineer predictive *in vitro* models of human biology and disease using our extensive expertise in both iPSC and CRISPR/-Cas9 gene editing technologies. We provide the best iPSC genome editing/ disease modeling services and have generated more than three hundred distinct mutations in various iPSC lines with a > 98% success rate.

- Two highly efficient gene editing technologies: CRISPR/Cas9 and TARGATT™
- Genome editing in iPSCs & stem cells from healthy and disease patients; and other mammalian species
- Wide range of control and patient iPSC lines available for disease modeling and therapeutic research
- Customizable deliverables

Gene Knockout

Gene correction or replacement

Gene Insertion/ Knock-in
(reporter gene, small fragment/ point mutation)

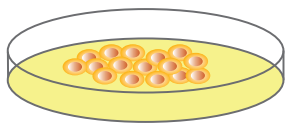
Inducible expression or overexpression

Benefits and Applications:

- Unlimited resource of *in vitro* models
- Isogenic control and disease cell lines for reliable comparison of results
- Physiologically relevant disease models for hard-to-model diseases
- Ideal for disease modeling, developmental genetics research
- Target drug discovery, efficacy and toxicity screening

New! Lentiviral Stable Cell Line Generation Service
(Integrating & non-integrating lentiviruses available)
Ask for details.

iPSC Gene Modification



- **CRISPR/Cas9**
- **TARGATT™**

ASC provides services under licensing agreement with the Broad Institute for CRISPR/Cas9 Gene-Editing technology and iPS Academia, Japan for iPSC technology along with ASC's proprietary TARGATT™ technology.

Services includes

- Cell line validation
- Target DNA vector construction and validation
- Transfection of CRISPR/Cas9 constructs
- Gene editing confirmation and clonal expansion
- Pluripotency characterization after genome editing (optional)

Deliverables and Timeline

- Genetically engineered iPSCs with confirmed mutations
- Customizable deliverables:
  - Choice of heterozygous and homozygous mutations
  - Gene editing without silent mutations (for critical research areas)
  - Feeder-free or feeder-dependent protocols
  - Footprint-free or lentivirus-based gene editing
  - Pluripotency characterization after gene editing
  - Differentiation into terminal lineage cells

Timeline: as little as 3 months

iPSC Gene Editing Service: https://www.appliedstemcell.com/research/services/stem-cell-services/crispr-ipsc-disease-model

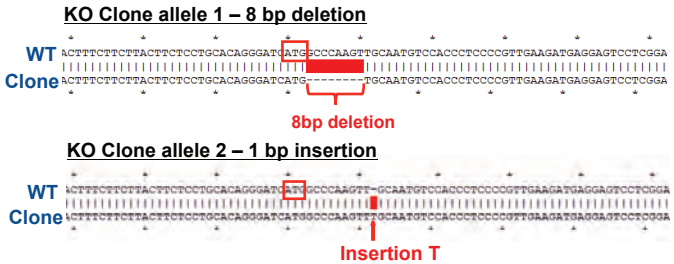
Case Studies

1. Knockout Mutation

Goal: To generate frameshift Knockout mutation in 6 isoforms of a gene in human iPSCs.

How: Six Isoforms of the gene of interest shared the same ATG start codon in the targeted exon. Next generation sequencing (NGS) was used to identify the best gRNA candidate.

Result: Co-transfection of gRNA and Cas9 in the hiPSC resulted in an **8 bp deletion** in allele #1 and a **1 bp insertion** in allele #2 at the Cas9/gRNA cut site, resulting in a frameshift mutation and premature stop codons in all six isoforms of the gene of interest.

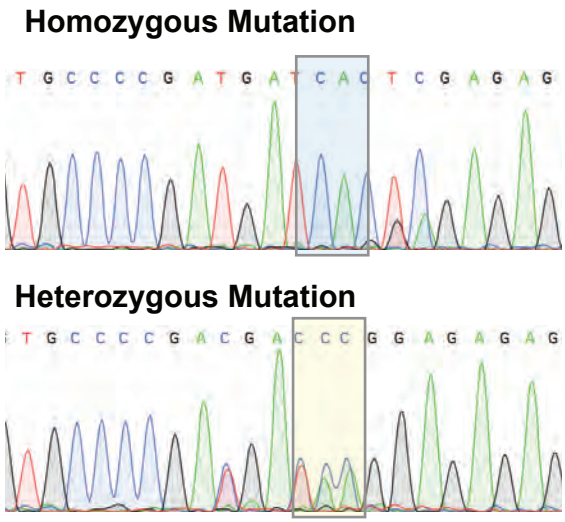


2. Point Mutation Correction in a Patient Cell Line

Goal: To introduce targeted heterozygous and homozygous CGA -> TGA point mutation in the gene of interest in a human iPSC line using CRISPR/Cas9.

How: Two gRNAs, g1 and g2 were chosen after functional validation by NGS, to generate homozygous and heterozygous mutations, respectively, in the gene of interest.

Result: Seven heterozygous clones were identified from 79 total clones screened with g2. One homozygous clone was identified from 76 clones with g1. No off-target activity was observed in the clones after off-target analysis (off-target analysis data not shown).

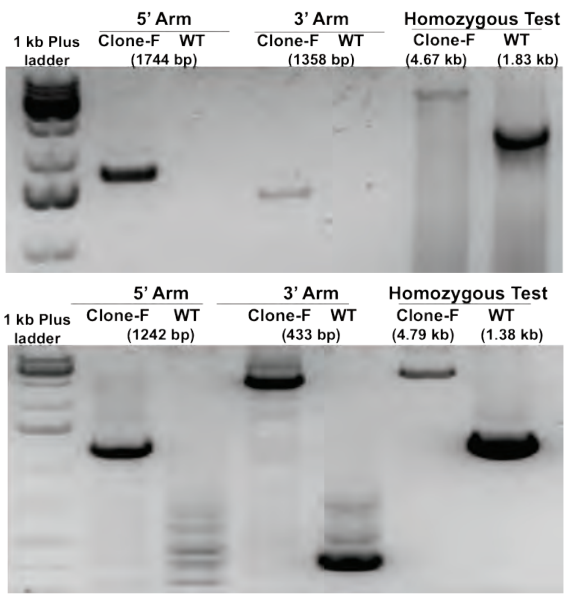


3. Knock-in of Two Reporter Genes in an iPSC Line

Goal: To insert 2 reporter genes, TdTomato and eGFP into ASC's well-characterized control iPSC line (Cat.# ASE-9203) using CRISPR/Cas9.

How: A sequential strategy was adopted to knock-in the 2 reporter genes. First, the TdTomato tag was inserted into the 3' end of the gene of interest #1. A homozygous clone was identified and re-targeted for insertion of the eGFP tag at the 3' end of gene #2. One homozygous clone (Clone-F) was identified and confirmed to have both reporter gene knock-in by PCR and sequencing (not shown).

Result: (Top) PCR gel electrophoresis to confirm the insertion of eGFP into Clone-F at the 3' end of gene #2. (Bottom) PCR gel electrophoresis to re-confirm the presence of TdTomato tag in Clone-F. WT = wild type clone.



CRISPRCLEAR™

Do-It-Yourself CRISPR Editing Kits for iPSCs

ASC's CRISPR iPSC Gene Editing Kits are designed for your disease- specific studies. This do-it-yourself genome editing toolkit enables generation of CRISPR modified iPSCs in your own lab. Our scientists will work closely with you to design the most efficient CRISPR components to be provided in this custom kit, thereby ensuring a fast turnaround and quality deliverables.

CRISPRCLEAR™ iPSC Genome Editing Kits		
ASK-7020S	CRISPR Point Mutation Kit for iPSCs	$1,800.00
ASK-7010S	CRISPR Knockout Kit for iPSCs	$1,700.00
ASK-7030S	CRISPR Knock-in Kit for iPSCs	$1,700.00
ASK-7040	hH11 Safe Harbor Locus Knock-in Kit	$1,000.00
ASK-7042	hAAVS1 Safe Harbor Knock-in Kit	$1,000.00

Kit Contains

- Cas9-gRNA plasmid with validation report
- Donor DNA (for knock-in kits)
- Human iPSC line (optional)

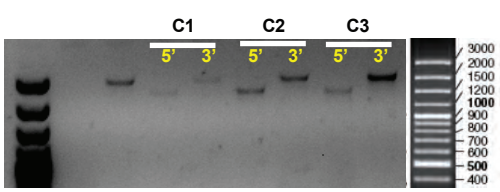


Figure: Large transgene knock-in into the hH11 locus in a control iPSC line using the CRISPCLEAR™ Safe Harbor Locus kit. The 5' and 3' junction PCR at the hH11 locus showed a 2.3 kb and a 2.8 kb fragment, confirming transgene insertion at the locus in three clones (C1, C2, C3).

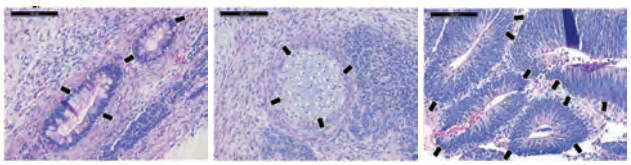
iPSC Characterization Services

Teratoma Formation Analysis Service

Teratoma Analysis is one of the most stringent and accurate quality control assessments for stem cells, in addition to other methods to characterize stemness such as immunohistochemistry and RT-PCR detection of pluripotency markers, in vitro embryoid body formation and karyotyping. It provides a functional assessment of pluripotency of the stem cells, including iPSCs, by analyzing the ability of the cells to form all three embryonic germ cell layers when xenografted into mice. ASC's teratoma formation analysis service has >97% success rate and has been acknowledged in > 30 peer-reviewed publications.

Services includes:

- Cell injection in 2 sites: kidney and testis
- Teratoma harvesting
- Tissue sectioning
- H&E staining
- Histological analysis of teratoma sections



EN: Gland (200x) ME: Cartilage (200x) EC: Neuronal Rosette (200x)

Figure: H&E staining of kidney and testis teratomas from mice injected with the ASE-9203 control iPSC line shows differentiated tissues representing the three germ layers, indicated by arrow heads. EN: endoderm; ME: mesoderm; EC: ectoderm.

Deliverables and Timeline:

- Complete report with histological analysis and high-resolution images of EN, ME, EC formation
- Tissue blocks and H&E stained tissue section slides

Timeline: 1-3 months

Success Rate

Key points	ASC's methods			Traditional methods
Cell Type	mESC/miPSC	hESC	hiPSC	hESC
Teratoma Formation Rate	100%	100%	93.7%	25-40%
Differentiation	distinctive	distinctive	distinctive	poor
Turnaround Time	3-5 weeks	5-8 weeks	10-14 weeks	12-18 weeks
Cells needed	0.5-1 million/site	0.5-2 million/site	1-2 million/site	3-5 million/site

Antibody Pluripotency Marker Staining:

- Human: OCT4, SOX2, SSEA4, TRA-1-60, TRA-1-81
- Mouse: OCT4, SOX2, SSEA1

Pluripotency & lineage-specific marker detection qPCR, RNA-seq

Karyotyping: Chromosome counting; G-banding)

Embryoid Body Formation and Characterization

Germline Transmission Evaluation

mESC Derivation Service

Custom iPSC Culture Service

iPSC Banking Service

Related Services (additional fees may apply)

Cell Immortalization Service

- Patient fibroblasts, primary cells, and more
- Transduction, colony selection (up to 10 passages)
- Characterization (transgene expression by RT-PCR)

Vector Cloning, Virus Packaging Services

- RNAi and inducible vectors/ BAC recombineering
- Retro- and lentivirus packaging service in 10 days (regular, high, ultra-high titers)

Stem Cell Characterization Kits for Mouse, Humans & Rat Stem Cells

Stem Cell Characterization Kits		
ASK-3005	Mouse ES/iPS Cell Characterization Kit	$200.00
ASK-3006	Human ES/iPS Cell Characterization Kit	$290.00
ASK-3007	Rat ES/iPS Cell Characterization Kit	$200.00

Stem Cell Characterization: https://www.appliedstemcell.com/research/services/stem-cell-services/stem-cell-characterization

iPSC Differentiation Service

ASC's offers iPSC differentiation services for ESC/ iPSC differentiation into more specialized cells including multipotent stem cells and fully differentiated somatic cells. Using proprietary protocols and reagents, we can differentiate your ESCs or patient-derived/ healthy iPSCs into various lineage cells: **neural stem cells (NSC), neurons, astrocytes, cardiomyocytes, hematopoietic lineage cells and hepatocytes**.

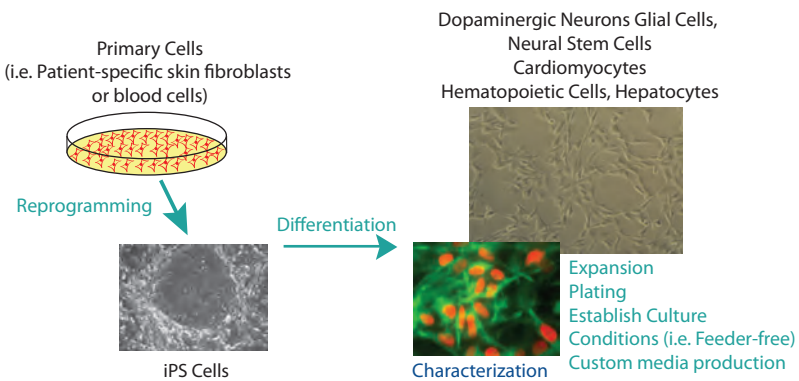
Services includes:

- Recovery and expansion of iPSCs
- Differentiation to precursor cells
- Characterization of precursor cells using immunocytochemical markers and functional assays

Deliverables and Timeline:

- Frozen precursor cells
- Detailed protocols for maturation of precursor cells into lineage of choice (media not included*)
- High-resolution images of immunocytochemical assays
- Detailed milestone and final reports

Timeline: depends on the differentiated lineage



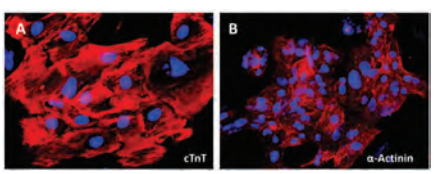
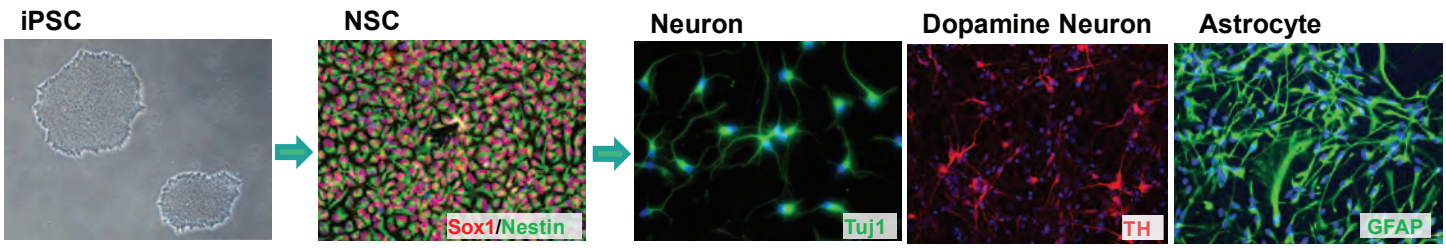


Figure: iPSC-derived cardiomyocytes maintained in cardiomyocyte maintenance medium: >85% of the cells express cTnT and α-actinin.

** Optimized lineage-specific maturation media available separately*

Neural Stem Cell and Neural Lineage Cell Differentiation Service

The process of iPSC differentiation to neurons and neuronal cells is of special importance for neurobiology and related disorders, considering the dearth of clinically relevant in vitro models available for research, drug screening and development, and therefore lack of therapy to reverse neuronal damage. ASC's now offers comprehensive service to differentiate your patient-derived iPSCs into self-renewing NSCs or further into neurons (dopaminergic/ cortical) and glial cells, for advancing neuroscience research.



Key Features:

- High purity cells expressing characteristic markers
- Proliferating NSCs can be frozen and cultured for multiple passages while retaining phenotype
- Integration-free differentiation and feeder-free culture protocols
- Functionally viable neurons characterized by immunocytochemistry and functional assays
- Isogenic lineage of NSCs, neurons and glial cells from parental iPSC
- Cells can be grown in co-cultures for generating advanced and bio-relevant cell line models

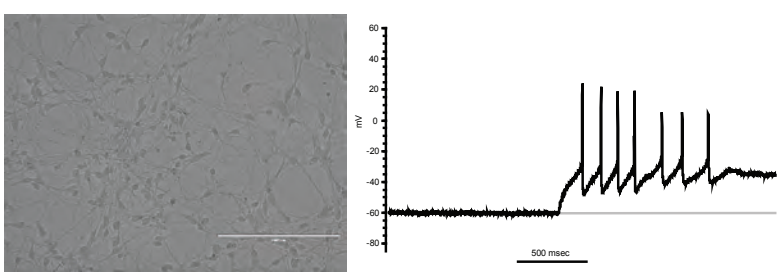


Figure: Single pulse current (patch clamp) recording of dopaminergic neurons derived from iPSCs indicate functional neurons that are excitable upon injection of current.

Neural Stem Cell Differentiation: https://www.appliedstemcell.com/research/services/stem-cell-services/neural-stem-cell-differentiation

Pre-Differentiated Neural Stem Cells, Neurons & Astrocytes

Applied StemCell offers high quality NSCs and differentiated neurons and astrocytes derived from fully characterized, parental iPSC lines from multiple donors, for flexibility in choosing the lineage most appropriate for your research.

Key Features:

- High purity, isogenic cells express characteristic cell line markers
- Integration-free protocols
- Fully characterized by immunocytochemistry and whole genome profiling
- Consistent and reliable source of differentiated neuronal cells
- Long-term viability in cell culture
- Neurons and astrocytes can be co-cultured for complex tissue modeling

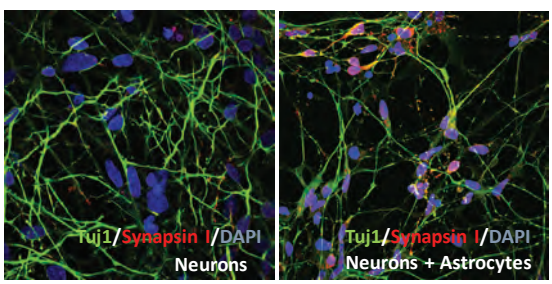


Figure: **(Right)** Whole genome profiling for markers expressed by differentiated astrocytes. **(Left)** Enhanced synapse formation in neuron-astrocyte co-cultures as seen by increase in synaptic puncta.

Gene	NSC	Neurons	Astrocytes
AQP4	-23	-5	1082
CCL2	396	63	2991
CD44	29	43	8716
CRYAB	-21	5	9661
GFAP	-2	1	30956
HOPX	-14	96	777
LGALS3	33	8	1203
NFIA	-43	981	2110
NFIX	-6	720	7849
PMP2	12	606	3186
PRRX1	23	19	3973
S100A6	137	142	1952
SPARCL1	1092	40	13584
TNC	164	589	4838

Benefits and Applications:

- Physiologically relevant tissue models for neurogenesis and CNS function studies
- Drug discovery, neuroprotection and neurotoxicity screening
- Neurodegenerative and neuroinflammation disease modeling
- Co-culture models to study neuronal viability for cell therapy studies

Available control iPSC lines and their isogenic differentiated cell lines

Prices listed below are for academic institutions; pricing and product availability are subject to change without notice

Human Control iPSC Lines for Genome Editing & Differentiation		
ASE-9203	Male; fibroblast-derived; episomal	$1,260.00
ASE-9101	Male; fibroblast-derived; retrovirus	$940.00
ASE-9109	Male; cord blood cell-derived; episomal	$3,750.00
ASE-9110	Female; cord blood cell-derived; episomal	$3,750.00
Differentiated Cell Lines from Control iPSCs		
ASE-9234	NSC; male (from ASE-9109)	$900.00
ASE-9234F	NSC; female (from ASE-9110)	$900.00
ASE-9303	NSC; male (from ASE-9203)	$625.00
ASE-9321	Cortical neurons; male (ASE-9234)	$650.00
ASE-9321F	Cortical neurons; female (ASE-9234F)	$650.00
ASE-9306	Cortical Neurons (from control iPSC; fibroblast)	$1,250.00
ASE-9322P	Astrocyte Precursor; male (ASE-9234)	$800.00
ASE-9322PF	Astrocyte Precursor; female (ASE-9234F)	$800.00
ASE-9322M	Mature Astrocytes; male (ASE-9234)	$1,000.00
ASE-9322MF	Mature Astrocytes; female (ASE-9234F)	$1,000.00
ASE-9323	Dopamine Neuron; male (ASE-9234)	$800.00
ASE-9323F	Dopamine Neuron; female (ASE-9234F)	$800.00
ASE-9027	Cardiomyocytes; PBMC; 1x10^6 cells	$380.00

Stem Cell Characterization: https://www.appliedstemcell.com/products/stem-cell-research/ipsc-differentiated-cells

Neurotoxicity Drug Screening Service

iPSC-based drug screening is the future of therapeutic drug development and recognized by international drug regulatory agencies. As one of the leaders in the stem cell industry, Applied StemCell (ASC) can help drug developers prioritize and move promising therapeutic compounds to the next stage of FDA approval faster and efficiently. We offer a comprehensive cell-based test battery for drug target discovery, drug efficacy and neurotoxicity screening.

Generation of iPSCs lines	Differentiation to Neural Cells	Disease Modeling & Drug Screening
Control iPSCs	Neural stem cells (NSC)	Neurotoxicology assays
Engineered iPSCs to model disease	Neurons (dopaminergic, cortical)	Neuroprotection screening
Engineered reporter lines	Astrocytes	CNS drug efficacy testing
CRISPR Mutation Correction	Oligodendrocytes	Screening for new drug targets

Key Features:

- Ethically-compatible, physiologically relevant models
- Fast and cost-effective screening
- Regulatory-compliant
- Highly predictive models with reproducible, consistent quality of results
- Stage-specific phenotype screening in a variety of tissues from different sources
- Ready-to-use or custom generated panels of iPSCs and derived cells

Benefits & Applications:

- Improved drug discovery
- Reliable safety assessments
- Prioritize your drug candidates
- Reduce late-stage drug attrition

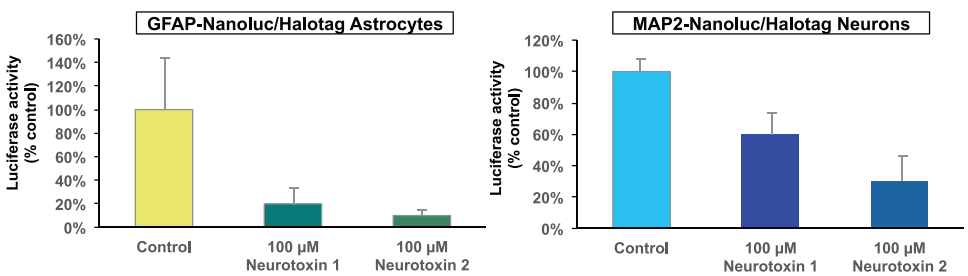


Figure: Luciferase-based cell viability was significantly reduced by up to 90% in astrocytes and neurons derived from lineage-specific reporter iPSC lines, when exposed to two neurotoxins. Luciferase activity was measured as % of control (DMSO-treated cells).

Table. iPSC-derived dopamine neurons provide predictive and reliable results in neuroprotective assays. Out of 40 compounds that were neuroprotective in conventional cell based assays, only 18 compounds (used in human clinical trials) were found to be neuroprotective in an MPP+- iPSC-derived dopamine neuron model of Parkinson's disease.

Neurotransmitter/ MAO Inhibitors:	Rasagiline, selegiline, nicotine, topiramate, amantadine, zonisamide, taurine
Antioxidant/ Mitochondrial Stabilizers:	Resveratrol, N-acetyl cysteine, lipoic acid, epigallocatechin gallate, creatine
Anti-Inflammatories:	Rolipram, indomethacin, 7-nitroindazole, 3-aminobenzamide, phenanthridone

Comprehensive test battery measures multiple morphological and physiological endpoints

Cellular morphology and biomarker screening

Cytotoxicity and cell viability assays

Mitochondrial toxicity testing

Functional assays (electrophysiology)

Quantitative gene expression: qPCR and RNA-seq (NGS)

Custom assay development to accommodate specialized needs of customers and drug candidates

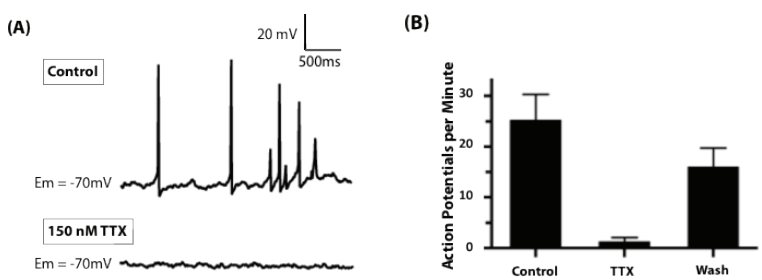


Figure: Inhibition of action potential by Tetrodotoxin (TTX) in iPSC-derived Neurons. (A) The recordings show action potentials in the absence (top; control) and presence (bottom) of 150nM TTX. The histogram shows the mean (±SEM) number of action potentials per minute (y-axis) in the absence, presence and following washout of TTX.

Neurotoxicity and Drug Testing: https://www.appliedstemcell.com/research/services/neurotoxicity-testing

Other iPSC Cell Culture Products

MEF Cells

- Strict quality control tested for long term culture of either mouse or human ESC/iPSC lines (>168 passages)
- Our MEFs are used by more than 200 clients in academic and industrial labs worldwide
- DR4, CF-1, Neo, SNL 76/7 cells available (Untreated, irradiated, mitomycin C-treated)

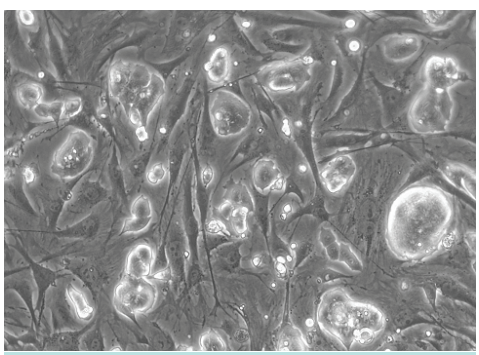
We provide high-quality MEF cells!
Average viability >95%

Cell Culture Products

- Serum and feeder free medium
- Conditioned medium for human ESC/iPSC culture
- Freezing medium

ESC-Sure™ FBS

- High quality, affordable ESC-grade serum for ES and iPS cell culture
- Supports undifferentiated growth of mESCs (QC report provided)



ESC-Sure™ FBS is extensively tested for supporting undifferentiated growth of mouse ESCs (mouse embryonic stem cells). The image shows healthy mESC that were cultures in MEF-feeder cell dependent system along with ASC's ES-grade FBS.

My EZGel™ iPSC 3D Matrix

- Serum-free and feeder-free cell culture
- Neutral pH and room temperature culture/ 37°C: No more icing or acidic conditions
- Mimics cell microenvironment
- Cells are easily encapsulated and harvested
- Fast hydrogel formation (~30 min) and longer shelf life
- Supports the formation of the germ layers (teratoma formation)

iPSC/ESC Cell Lines, MEF Feeder Cells & Media

Prices listed below are for academic institutions; pricing and product availability are subject to change without notice

Neurological Disease Knockout iPSC Lines from Control iPSC (ASE-9109)		
ASE-9400	Genome edited iPSCs (KO) PARK2-/-	$5,000.00
ASE-9401	Genome edited iPSCs (KO) PARK7-/-	$5,000.00
ASE-9402	Genome edited iPSCs (KO) PINK1-/-	$5,000.00
ASE-9403	Genome edited iPSCs (KO) LRRK2-/-	$5,000.00
ASE-9404	Genome edited iPSCs (KO) BDNF-/-	$5,000.00
ASE-9405	Genome edited iPSCs (KO) APOE-/-	$5,000.00
ASE-9406	Genome edited iPSCs (KO) DISC1-/-	$5,000.00
ASE-9407	Genome edited iPSCs (KO) SOD1-/-	$5,000.00
ASE-9408	Genome edited iPSCs (KO) CNTNAP2-/-	$5,000.00
Reporter Knock-in iPSC Lines from Control iPSC (ASE-9109)		
ASE-9500	Genome edited iPSCs (KI) Lineage-specific reporter MAP2-NanolucHalotag-hetero	$5,000.00
ASE-9501	Genome edited iPSCs (KI) Lineage-specific reporter GFAP-NanolucHalotag-hetero	$5,000.00
ASE-9502	Genome edited iPSCs (KI) Lineage-specific reporter AAVS-DCX-GFP	$5,000.00
ASE-9503	Genome editeid iPSCs (KI) Safe harbor CAG-GFP-chr19-hetero	$5,000.00
ASE-9504	Genome editeid iPSCs (KI) Safe harbor CAG-GFP-chr13-hetero	$5,000.00

iPSC/ESC Cell Lines, MEF Feeder Cells & Media

Prices listed below are for academic institutions; pricing and product availability are subject to change without notice

MEF Feeder Cells		
ASF-1201	CF1 MEF, P2, untreated, 1 vial of 1^106 cells	$95.00
ASF-1202	CF1 MEF, P2, untreated, 3 vials of 1^106 cells	$268.00
ASF-1217	CF1 MEF, P3, irradiated, 1 vial of 1^106 cells	$24.00
ASF-1215	CF1 MEF, P3, irradiated, 1 vial of 2^106 cells	$37.00
ASF-1213	CF1 MEF, P3, irradiated, 1 vial of 4^106 cells	$48.00
ASF-1214	CF1 MEF, P3, irradiated, 5 vials of 4^106 cells	$226.00
ASF-1216	CF1 MEF, P3, irradiated, 8 vials of 2^106 cells	$269.00
ASF-1225	CF1 MEF, P3, mitomycin-C treated, 1 vial of 2^106 cells	$37.00
ASF-1223	CF1 MEF, P3, mitomycin-C treated, 1 vial of 4^106 cells	$48.00
ASF-1224	CF1 MEF, P3, mitomycin-C treated, 5 vials of 4^106 cells	$226.00
ASF-1226	CF1 MEF, P3, mitomycin-C treated, 8 vials of 2^106 cells	$269.00
ASF-1001	DR4 MEF, P2, untreated, 1 vial of 1´106 cells	$189.00
ASF-1002	DR4 MEF, P2, untreated, 3 vials of 1^106 cells	$515.00
ASF-1015	DR4 MEF, P3, irradiated, 1 vial of 2^106 cells	$74.00
ASF-1013	DR4 MEF, P3, irradiated, 1 vial of 4^106 cells	$126.00
ASF-1016	DR4 MEF, P3, irradiated, 5 vial of 2^106 cells	$342.00
ASF-1014	DR4 MEF, P3, irradiated, 5 vials of 4^106 cells	$578.00
ASF-1025	DR4 MEF, P3, mitomycin-C treated, 1 vial of 2^106 cells	$74.00
ASF-1023	DR4 MEF, P3, mitomycin-C treated, 1 vial of 4^106 cells	$126.00
ASF-1026	DR4 MEF, P3, mitomycin-C treated, 5 vial of 2^106 cells	$342.00
ASF-1024	DR4 MEF, P3, mitomycin-C treated, 5 vials of 4^106 cells	$578.00
ASF-1101	Neo resistant MEF, P2, untreated, 1 vial of 1^106 cells	$95.00
ASF-1102	Neo resistant MEF, P2, untreated, 3 vials of 1^106 cells	$268.00
ASF-1115	Neo resistant MEF, P3, irradiated, 1 vial of 2^106 cells	$37.00
ASF-1113	Neo resistant MEF, P3, irradiated, 1 vial of 4^106 cells	$48.00
ASF-1114	Neo resistant MEF, P3, irradiated, 5 vials of 4^106 cells	$226.00
ASF-1116	Neo resistant MEF, P3, irradiated, 8 vials of 2^106 cells	$269.00
ASF-1125	Neo resistant MEF, P3, mitomycin-C treated, 1 vial of 2^106 cells	$37.00
ASF-1123	Neo resistant MEF, P3, mitomycin-C treated, 1 vial of 4^106 cells	$48.00
ASF-1124	Neo resistant MEF, P3, mitomycin-C treated, 5 vials of 4^106 cells	$226.00
ASF-1126	Neo resistant MEF, P3, mitomycin-C treated, 8 vials of 2^106 cells	$269.00
ASF-1317	SNL 76/7 mouse fibroblast STO cell line, P14, irradiated, 1 vials of 5^106 cells	$48.00
ASF-1318	SNL 76/7 mouse fibroblast STO cell line, P14, irradiated, 1 vials of 5^106 cells	$226.00
ASF-1327	SNL 76/7 mouse fibroblast STO cell line, P14, mitomycin-C treated, 1 vials of 5^106 cells	$48.00
ASF-1328	SNL 76/7 mouse fibroblast STO cell line, P14, mitomycin-C treated, 1 vials of 5^106 cells	$226.00
Stem Cell-Grade Serum & Media		
ASM-5017	ESC-Sure™ ES Grade fetal bovine serum (FBS), 500 mL	$550.00
ASM-5008	ESC-Sure™ conditioned medium for hESC/iPSC, 100 mL	$126.00
ASM-5010	ESC-Sure™ hESC/iPSC Culture Medium (SFFM), 100 mL	$104.00
ASM-5011	ESC-Sure™ mESC mate, 100 mL	$210.00
ASM-4013	NeuroSure™ NSC Differentiation Media	$150.00
ASM-4014	NeuroSure™ NSC Maintenance Media, 100 mL	$150.00
iPSC & Differentiated Cell Culture Medium & Related Products		
ASE-9321K	Neurons Starter Kit (iPSC from Blood Cells; Male)	$850.00
ASE-9321KF	Neurons Starter Kit (iPSC from Blood Cells; Female)	$850.00
ASE-9322PK	Astrocytes Precursors Starter Kit (iPSC from Blood Cells; Male)	$900.00
ASE-9322PKF	Astrocytes Precursors Starter Kit (iPSC from Blood Cells; Female)	$900.00
ASE-9323K	Dopaminergic Neurons Starter Kit (iPSC from Blood Cells; Male)	$1,000.00
ASE-9323KF	Dopaminergic Neurons Starter Kit (iPSC from Blood Cells; Female)	$1,000.00
ASE-9321NI	Neuron Induction Media	$200.00
ASE-9321NM	Neuron Maturation Media	$200.00
ASE-9322AI	Astro Induction Media	$200.00
ASE-9322AM	Astro Maturation Media	$200.00
ASE-9323DI	DOPA Induction Media	$240.00
ASE-9323DM	DOPA Maturation Media	$260.00
ASE-9234SM	NSC maintenance Media	$200.00

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