



C₁TM Single-Cell Auto Prep System

Site Requirements

PN 100-5201 H1

For more information, see the *Fluidigm[®] C₁TM Single-Cell Auto Prep System User Guide* (PN 100-4977)

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Revision History

Revision	Date	Description of change
H1	9 July 2014	<ul style="list-style-type: none"> Updated required materials for preparing genomic samples, whole genome sequencing, and whole exome sequencing (see “Required Reagents for the DNA Sequencing (DNA Seq) Protocol” on page 9). Corrected the relative humidity range from 20-80% to 30-80% (see “Step 3: Selecting a Site for the C₁ System” on page 16). Corrected the typical average power consumption (W) from 300 to Idle: 40 and Operating: 175 (see “Step 3: Selecting a Site for the C₁ System” on page 16).
G1	8 April 2014	<ul style="list-style-type: none"> Included required materials for whole genome sequencing and whole exome sequencing (see “Required Reagents for the DNA Sequencing (DNA Seq) Protocol” on page 9).
F1	4 April 2014	<ul style="list-style-type: none"> Updated name from “C₁[™] Single-Cell Auto Prep Module 1 Kit” to “Module 1” and from “C₁[™] Single-Cell Auto Prep Module 2 Kit” to “Module 2 (PreAmp).” Changed “MSDSs” to “SDSs.” Updated the storage temperatures for the C₁[™] DNA Seq Cell Wash Buffer and C₁[™] DNA Dilution Reagent in the C₁[™] Single-Cell Auto Prep Kit for mRNA Seq and C₁[™] Single-Cell Auto Prep Kit for DNA Seq Kits (see “Required Equipment for mRNA Sequencing (mRNA Seq) Protocol” on page 8 and “Required Reagents for the DNA Sequencing (DNA Seq) Protocol” on page 9). Updated the name of the Clontech kit to SMARTer[®] Ultra[™] Low RNA Kit for the Fluidigm[®] C₁[™] System (see “Required Equipment for mRNA Sequencing (mRNA Seq) Protocol” on page 8). Adjusted the storage conditions for Box 1 of 2 of the SMARTer[®] Ultra[™] Low RNA Kit for the Fluidigm[®] C₁[™] System from –80 °C to –20 °C ((see “Required Equipment for mRNA Sequencing (mRNA Seq) Protocol” on page 8). Updated telephone numbers to reach Fluidigm Technical Support. Updated the names of the module kits to match the names on the labels.
E1	4 December 2013	<p>New information on the materials required to run the Fluidigm[®] C₁[™] Single-Cell Auto Prep System for targeted sequencing of genomic DNA from single cells (see “Required Reagents for the DNA Sequencing (DNA Seq) Protocol” on page 9).</p>

Introduction

Fluidigm Technical Support personnel will schedule a time to install the C₁ Single-Cell Auto Prep System at your site and train your staff to use the system. Before a Fluidigm service representative arrives to install the system, you need to choose and prepare your site for the installation according to the instructions in this document.

Notify your Fluidigm representative if special shipping arrangements are necessary at your site, or if you need assistance in placing the C₁ Single-Cell Auto Prep System.

Site Preparation Workflow

Perform the following five steps to choose and prepare your site:

	Site Prep Workflow
1	Review this guide.
2	Review required reagents and ancillary equipment lists.
3	Select a site for the C ₁ Single-Cell Auto Prep System that meets Fluidigm requirements.
4	Stock the site with the required safety equipment.
5	Receive the C ₁ Single-Cell Auto Prep System and perform a visual check of the crate and containers. If damage is apparent, contact Fluidigm Technical Support.
6	Place the crated and boxed components at their final destination.

Step 1: Reviewing this Guide

Use this guide for information on all C₁ Single-Cell Auto Prep System site requirements, including safety, environmental, electrical, and space requirements.

Step 2: Reviewing Required Reagents and Equipment Lists

Follow the manufacturer's storage conditions.

Required Reagents for the Preamplification (PreAmp) Protocol



NOTE: When ordering the C₁ Single-Cell Auto Prep Preamplification Module 1 and Module 2 (PreAmp) from Fluidigm, use the parent part number: 100-5319.



IMPORTANT: The Fluidigm-provided reagents are shipped in two boxes: Module 1 and Module 2 (PreAmp). Store Module 1 at 4 °C and the Module 2 (PreAmp) in a -20 °C freezer as soon as you receive them.

Fluidigm-Supplied Reagents for Preamplification Protocol	-80 °C	-20 °C	4 °C	RT
C ₁ [™] Single-Cell Auto Prep Reagent Kit (PN 100-5319):				
• Module 1 (PN 100-5518):				
- C ₁ [™] Blocking Reagent			X	
- C ₁ [™] Suspension Reagent			X	
- C ₁ [™] Cell Wash Buffer			X	
- Low lint cloth				X
• Module 2 (PreAmp) (PN 100-5519):				
- C ₁ [™] Loading Reagent		X		
- C ₁ [™] DNA Dilution Reagent		X		
- C ₁ [™] Harvest Reagent		X		
- C ₁ [™] Preloading Reagent		X		
- C ₁ [™] Lysis Plus Reagent		X		
- C ₁ [™] PreAmp Dilution Reagent		X		

Reagents Provided by Customer for Pre-amplification Protocol	-80 °C	-20 °C	4 °C	RT
• Gene expression assays		X		
• Single Cell-to-CT TM Kit (Life Technologies, PN 4458237)		X		
• (<i>Optional</i>) LIVE/DEAD Cell Viability/Cytotoxicity Kit (Life Technologies, PN L-3224)		X		
• (<i>Suggested</i>) ArrayControl TM RNA Spikes (Life Technologies PN, AM1780)	X			
• (<i>Optional</i>) SuperNase-IN TM (Life Technologies, PN AM2694)		X		
• 70% Ethanol in a squirt bottle				X
• (<i>Suggested</i>) THE RNA Storage Solution (Life Technologies, PN AM7000)				X

Required Equipment for Pre-amplification (PreAmp) Protocol

- ▶ C₁ Single-Cell Auto Prep System
- ▶ C₁TM Single-Cell Auto Prep IFCs for pre-amplification (barcodes 1782x, 1783x or 1784x)
- ▶ 2 biocontainment hoods to prevent DNA contamination of lab and samples
- ▶ 96-well PCR plate (USA Scientific, TempPlateTM semi-skirted, PN 1402-9700)
- ▶ 2 centrifuges: 1 for 1.5-mL microcentrifuge tubes, 1 for 96-well plates
- ▶ Vortex
- ▶ Imaging equipment compatible with C₁ Auto Prep IFCs (See *Minimum Specifications for Single-Cell Imaging Specification Sheet*, PN 100-5004)
- ▶ Ice bucket

Suggested Equipment and Consumables for the Pre-amplification (PreAmp) Protocol

- ▶ INCYTO C-Chip Disposable Hemocytometer (Neubauer Improved, PN DHC-N01)

Required Reagents for the mRNA Sequencing (mRNA Seq) Protocol



NOTE: When ordering the C₁ Single-Cell Auto Prep Kit for mRNA Seq Module 1 and Module 2 (mRNA Seq), from Fluidigm, use the parent part number: 100-6201.



IMPORTANT: The Fluidigm-provided reagents are shipped in two boxes: Module 1 and Module 2 (mRNA Seq). Store Module 1 at 4 °C and store the Module 2 (mRNA Seq) in a -20 °C freezer as soon as you receive them.

Fluidigm-Supplied Reagents for mRNA Seq Protocol	-80 °C	-20 °C	4 °C	RT
C ₁ [™] Single-Cell Auto Prep Reagent Kit for mRNA Seq (PN 100-6201):				
• Module 1 (PN 100-5518):				
- C ₁ Blocking Reagent			X	
- C ₁ Suspension Reagent			X	
- C ₁ Cell Wash Buffer			X	
- Low lint cloth				X
• Module 2 (mRNA Seq) (PN 100-6209):				
- C ₁ DNA Dilution Reagent		X		
- C ₁ Harvest Reagent		X		
- C ₁ Preloading Reagent		X		
- C ₁ Loading Reagent		X		

Reagents Provided by Customer for mRNA Seq Protocol	-80 °C	-20 °C	4 °C	RT
• SMARTer [®] Ultra [™] Low RNA Kit for the Fluidigm [®] C ₁ [™] System, Box 1 of 2 (Clontech, PN 634835)		X		
• SMARTer [®] Ultra [™] Low RNA Kit for the Fluidigm [®] C ₁ [™] System, Box 2 of 2 (Clontech, PN 634935)		X		
• Advantage [®] 2 PCR Kit (Clontech, PN 639206)		X		
• Dilution Buffer, 10 mL (from Box 2 of the Clontech SMARTer Kit)			X	
• (<i>Optional</i>) LIVE/DEAD Cell Viability/Cytotoxicity Kit (Life Technologies, PN L-3224)		X		

Reagents Provided by Customer for mRNA Seq Protocol	-80 °C	-20 °C	4 °C	RT
• (Suggested) ArrayControl [™] RNA Spikes (Life Technologies PN, AM1780)	X			
• 70% Ethanol in a squirt bottle				X
• (Suggested) THE RNA Storage Solution (Life Technologies, PN AM7000)				X
• (Optional) RNeasy Plus Micro Kit (Qiagen, PN 74035)			X	
• (Optional) 14.3 M (B-mercaptoethanol)				X
• (Optional) QIAshredder disposable cell-lysate homogenizers (Qiagen, PN 79654)				X

Reagents Provided by Customer for Illumina Sequencing Library Preparation	-80 °C	-20 °C	4 °C	RT
• Nextera XT DNA Sample Preparation Kit (Illumina, PN FC-131-1096, Box 1 of 2)		X		
• Nextera XT DNA Sample Preparation Kit (Illumina, PN FC-131-1096, Box 2 of 2)			X	
• Nextera XT DNA Sample Preparation Index Kit (96 Indices, 385 Samples) (Illumina, PN FC-131-1002)		X		
• Quant-iT [™] PicoGreen [®] dsDNA Assay Kit (Life Technologies, PN P11496)		X		
• High Sensitivity DNA Reagents (Agilent Technologies, PN 5067-4626)			X	
• High Sensitivity DNA Chips (Agilent Technologies)				X
• Agencourt AMPure [®] XP (Agencourt BioScience Corp., PN A63880)			X	
• Ethanol, absolute - 500 mL (Sigma-Aldrich, PN E7023)				X

Required Equipment for mRNA Sequencing (mRNA Seq) Protocol

- ▶ C₁ Single-Cell Auto Prep System
- ▶ C₁ Single-Cell Auto Prep IFCs for mRNA Seq (barcodes 1772x or 1773x)
- ▶ 2 biocontainment hoods to prevent DNA contamination of lab and samples
- ▶ 96-well PCR plate (USA Scientific, TempPlate[™] semi-skirted, PN 1402-9700)
- ▶ 2 centrifuges: 1 for 1.5-mL microcentrifuge tubes, 1 for 96-well plates
- ▶ Vortex
- ▶ Imaging equipment compatible with C₁ Single-Cell Auto Prep IFCs (See *Minimum Specifications for Single-Cell Imaging Specification Sheet*, PN 100-5004)
- ▶ Ice bucket
- ▶ MicroAMP[™] clear adhesive film (Life Technologies, PN 4306311)

Suggested Equipment and Consumables for the mRNA Sequencing (mRNA Seq) Protocol

- ▶ INCYTO C-Chip Disposable Hemocytometer (Neubauer Improved, PN DHC-N01)

Required Reagents for the DNA Sequencing (DNA Seq) Protocol



NOTE: When ordering the C₁[™] Single-Cell Auto Prep Kit for DNA Seq Kit from Fluidigm, use PN 100-7357.



IMPORTANT: The Fluidigm-provided reagents are shipped in three boxes. Store DNA Seq (Module 1) at 4 °C and DNA Seq (Module 2) and DNA Seq (Module 3) at -20 °C according to the labels upon receipt.

Fluidigm-Supplied Reagents for Whole Genome Amplification	-20 °C	4 °C	RT
C ₁ [™] Single-Cell Auto Prep Reagent Kit for DNA Seq (PN 100-7357):			
• DNA Seq (Module 1) (PN 100-7379):			
- C ₁ Suspension Reagent		X	
- C ₁ Blocking Reagent		X	
- C ₁ DNA Dilution Reagent		X	
• DNA Seq (Module 2) (PN 100-7380):			
- C ₁ Harvest Reagent	X		
- C ₁ Preloading Reagent	X		
- C ₁ DNA Seq Cell Wash Buffer	X		
- C ₁ MgCl ₂ for AA (Access Array [™] System)	X		
• DNA Seq (Module 3) (PN 100-7423):			
- PCR Water	X		
- C ₁ [™] DTT	X		
- C ₁ [™] DNA Seq Reaction Mix	X		
- C ₁ [™] DNA Seq Lysis Buffer	X		
- C ₁ [™] DNA Seq Stop Buffer	X		

Reagents Provided by Customer for Whole Genome Amplification	-80 °C	-20 °C	4 °C	RT
illustra GenomiPhi V2 DNA Amplification Kit-Enzyme ONLY (GE Healthcare Life Sciences, PN 25-6600-30)	X			
illustra GenomiPhi V2 DNA Amplification Kit-All other components except enzyme (GE Healthcare Life Sciences, PN 25-6600-30)		X		
(Optional) LIVE/DEAD Cell Viability/Cytotoxicity Kit (Life Technologies, PN L-3224)		X		
70% Ethanol in a squirt bottle				X
Cell culture medium			X	

Fluidigm-Supplied Reagents for Targeted Sequencing	-20 °C	4 °C	RT
20X Access Array [™] Loading Reagent (PN 100-7604)	X		
1X Access Array [™] Harvest Solution (PN 100-1031)	X		
1X Access Array [™] Hydration Reagent v2 (PN 100-7966)	X		
Access Array [™] Barcode Library for Illumina Sequencers - 384 (Single Direction) (PN 100-4876)	X		

Reagents Provided by Customer for Targeted Sequencing ^a	-20 °C	4 °C	RT
Primers for Illumina [®] Sequencing	X		
FastStart High Fidelity PCR System, dNTPack (Roche, PN 04 738 292 001)	X		
Agencourt [®] AMPure [®] XP (Beckman Coulter, PN A63880)		X	
Custom multiplex primers (ASY-AAX; Fluidigm vendor)	X		
Custom uniplex primers (ASY-AA; Fluidigm vendor)	X		
Quant-iT [™] PicoGreen [®] dsDNA Assay Kit (Life Technologies, PN P11496) ^b	X		

a. For a detailed list of reagents, refer to the *Fluidigm[®] Access Array[™] System for Illumina Sequencing Systems User Guide* (PN 100-3770).

b. See kit product insert for reagent storage conditions.

Reagents Provided by Customer for Preparing Genomic Samples	-20 °C	4 °C	RT
Nextera [®] Rapid Capture Kit (Illumina, PN FC-140-1003) ^a	X	X	X
(Optional) Index adapters from the Nextera [®] Rapid Capture Custom Enrichment Kit 288 Samples (Illumina, PN 15055366)	X		
Ethanol, absolute (Sigma-Aldrich, 459844-500ML)			X
Agilent High Sensitivity DNA Kit (Agilent, PN 5067-4626)			X
Quant-iT [™] PicoGreen [®] dsDNA Assay Kit (Life Technologies, PN P11496) ^a		X	X
UltraPure [™] DNase/RNase-Free Distilled Water			X

a. See kit product insert for reagent storage conditions.

Reagents Provided by Customer for Whole Genome Sequencing	-20 °C	4 °C	RT
Nextera [®] Rapid Capture Kit (Illumina, PN FC-140-1003) ^a	X	X	X

a. See kit product insert for reagent storage conditions.

Reagents Provided by Customer for Whole Exome Sequencing	-20 °C	4 °C	RT
Nextera Rapid Capture Kit (Illumina, PN FC-140-1003) ^a	X	X	X
Index adapters from the Nextera [®] Rapid Capture Custom Enrichment Kit 288 Samples (Illumina, PN 15055366)	X		
Ethanol, absolute (Sigma-Aldrich, 459844-500ML)			X
Agilent High Sensitivity DNA Kit (Agilent, PN 5067-4626)			X
Quant-iT PicoGreen [®] dsDNA Assay Kit (Life Technologies, PN P11496) ^a	X		
UltraPure DNase/RNase-Free Distilled Water			X

a. See kit product insert for reagent storage conditions.

Required Equipment and Consumables for the DNA Sequencing (DNA Seq) Protocol

Required Equipment and Consumables for Whole Genome Amplification

- ▶ C₁ Single-Cell Auto Prep System
- ▶ C₁ Single-Cell Auto Prep IFCs for DNA Seq (barcodes 1791x, 1792x, or 1793x)
- ▶ 96-well PCR Plates (USA Scientific, TempPlate[™] semi-skirted, PN 1402-9700)
- ▶ 2 centrifuges: 1 for 1.5-mL microcentrifuge tubes, 1 for 96-well plates/15-mL centrifuge tubes
- ▶ Water bath (37 °C; to thaw frozen cells)
- ▶ Vortexer
- ▶ MicroAmp[™] clear adhesive film (Life Technologies, PN 4306311)
- ▶ Thermal cycler
- ▶ Low-lint cloth
- ▶ 2 biocontainment hoods to prevent DNA contamination of lab and samples
- ▶ Imaging equipment compatible with C₁[™] Single-Cell Auto Prep integrated fluidic circuits (IFCs). See *Minimum Specifications for Single-Cell Imaging Specification Sheet*, PN 100-5004.
- ▶ For PicoGreen[®] Assay:
 - Corning[®] 384 Well Low Flange Black Flat Bottom Polystyrene Not Treated Microplate (Corning, PN 3573)
 - Fluorometer

Required Equipment and Consumables for Targeted Sequencing

- ▶ Access Array[™] System
- ▶ 48.48 Access Array[™] IFCs; 2 required to process 96 cells [Fluidigm, PN AA-M-48.48]
- ▶ Agilent Bioanalyzer
- ▶ Agilent High Sensitivity DNA Kit (Agilent Technologies, PN 5067-4626)
- ▶ Agilent DNA 1000 Chips
- ▶ 96-well PCR plates
- ▶ Vortexer
- ▶ 96-well PCR Plates (USA Scientific, TempPlate[™] semi-skirted, PN 1402-9700)
- ▶ MicroAmp[™] clear adhesive film (Life Technologies, PN 4306311)
- ▶ Centrifuge
- ▶ Thermal Cycler
- ▶ Magnetic stand for 1.5-mL microcentrifuge tubes
- ▶ Eppendorf[®] 0.2-mL PCR Tubes (VWR, PN 47730-598)
- ▶ VWR[®] Slick Disposable Microcentrifuge Tubes, Polypropylene, 1.5-mL (VWR, PN 20170-666)

For more information on equipment and consumables, refer to the *Fluidigm[®] Access Array[™] System for Illumina[®] Sequencing Systems User Guide* (PN 100-3770).

Required Equipment and Consumables for Preparing Genomic Samples

- ▶ Agilent Bioanalyzer
- ▶ Agilent High Sensitivity DNA Chips (Agilent Technologies, PN 5067-4626)
- ▶ 96-well PCR plates (USA Scientific, TempPlate™ semi-skirted, PN 1402-9700)
- ▶ Vortexer
- ▶ Centrifuge
- ▶ Thermal Cycler
- ▶ Magnetic stand for 1.5-mL microcentrifuge tubes and 96-well plates
- ▶ MicroAmp[®] Clear Adhesive Film (Life Technologies, PN 4306311)
- ▶ VWR[®] Slick Disposable Microcentrifuge Tubes, Polypropylene, 1.5-mL (VWR, PN 20170-666)
- ▶ For PicoGreen[®] Assay:
 - Corning 384 Well Low Flange Black Flat Bottom Polystyrene Not Treated Microplate (Corning, PN 3573)
 - Fluorometer

Required Equipment and Consumables for Whole Genome Sequencing

- ▶ Agilent Bioanalyzer
- ▶ Agilent High Sensitivity DNA Chips (Agilent Technologies, PN 5067-4626)
- ▶ Vortexer
- ▶ Centrifuge
- ▶ Magnetic stand for 1.5-mL microcentrifuge tubes and 96-well plates[®]
- ▶ VWR[®] Slick Disposable Microcentrifuge Tubes, Polypropylene, 1.5-mL (VWR, PN 20170-666)

Required Equipment and Consumables for Whole Exome Sequencing

- ▶ Agilent Bioanalyzer
- ▶ Agilent High Sensitivity DNA Chips (Agilent Technologies, PN 5067-4626)
- ▶ Vortexer
- ▶ Centrifuge
- ▶ Thermal Cycler
- ▶ Magnetic stand for 1.5-mL microcentrifuge tubes and 0.25-mL PCR tubes
- ▶ 96-well PCR plates (USA Scientific, TempPlate™ semi-skirted, PN 1402-9700)
- ▶ Thermoshaker
- ▶ Laboratory rotator
- ▶ MicroAmp Clear Adhesive Film (Life Technologies, PN 4306311)
- ▶ Eppendorf® 0.2-mL PCR Tubes (VWR, PN 47730-598)
- ▶ VWR® Slick Disposable Microcentrifuge Tubes, Polypropylene, 1.5-mL (VWR, PN 20170-666)

Suggested Equipment and Consumables for the DNA Sequencing (DNA Seq) Protocol

Suggested Equipment and Consumables for Whole Genome Amplification

- ▶ INCYTO C-Chip Disposable Hemocytometer (Neubauer Improved, INCYTO, PN DHC-N01)

Suggested Equipment and Consumables for Targeted Sequencing

- ▶ Barrier tape (Fluidigm, PN 100-5920)

Suggested Equipment and Consumables for Preparing Genomic Samples, Whole Genome Sequencing, and Whole Exome Sequencing

- ▶ NanoDrop™ Spectrophotometer
- ▶ For PicoGreen® Assay:
 - Corning® 384 Well Low Flange Black Flat Bottom Polystyrene Not Treated Microplate (Corning, PN 3573)
 - Fluorometer

Step 3: Selecting a Site for the C₁ System

When considering a site, keep in mind these requirements:

- Harmonized standards
- Environmental conditions
- Laboratory bench requirements
- Electrical requirements



CAUTION! The installation location **cannot** be designated BioSafety Level 3 (BSL-3) or BioSafety Level 4 (BSL-4). Fluidigm does not install, service, or repair the C₁ System in areas designated BSL-3 or BSL-4.

Harmonized Standards

The C₁ Single-Cell Auto Prep System conforms with the provisions of the following harmonized standards:

- EN61010-1
- EN61010-2-010
- EN61010-2-081

EN61326-1: Electrical equipment for measurement, control, and laboratory use. EMC requirements. General requirements.

Environmental Conditions

Altitude

The C₁ Single-Cell Auto Prep System is for use in altitudes not exceeding 8,202 ft. (2,500 m) above sea level. If your facility is located above this elevation, call Technical Support.

Humidity and Temperature

Ensure that the following requirements are maintained:

Condition	Acceptable Range
Humidity	30 - 80% relative humidity, non-condensing
Temperature	15 - 28 °C (59-82 °F), stable

Also, do not locate the system next to heat sources, cooling ducts, in direct sunlight or extreme ambient lighting. Temperature extremes can cause system instability. The C₁ Single-Cell Auto Prep System is designed to be used indoors only.

Pollution

The C₁ Single-Cell Auto Prep System conforms to standard laboratory environments. Do not install the system where conductive pollutants are present.

Ventilation Requirements

The C₁ Single-Cell Auto Prep System produces only hot air exhaust (no fumes or vapors). The C₁ Single-Cell Auto Prep System has an exhaust grill exit. Four inches (10.2 cm) of clearance must be maintained at the exhaust grill exit.

Ensure your lab space is ventilated using non-recirculating air exchanges.

Laboratory Bench Requirements

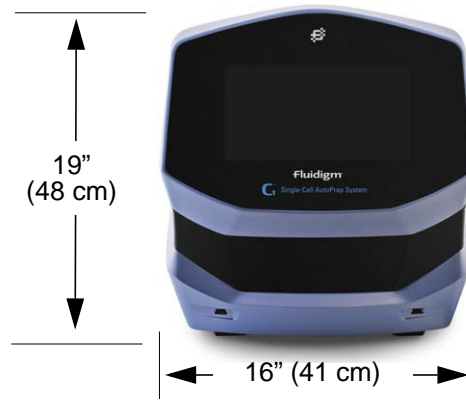
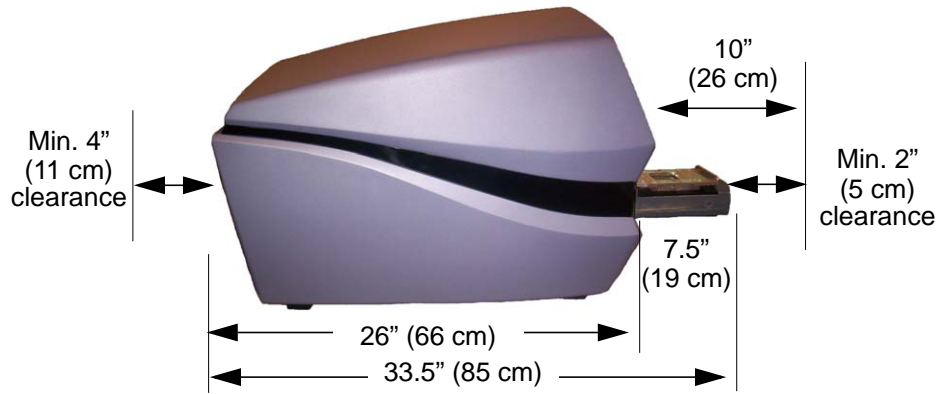


CAUTION! Weight: Your laboratory bench must support at least 200 lbs (~ 91 kg).

Dimensions

Depending on your configuration, you'll need to consider the following dimensions:

- C₁ Single-Cell Auto Prep System, 19h x 16w x 26d in. (48 x 41 x 66 cm)



Electrical Requirements

This section applies to the C₁ Single-Cell Auto Prep System. For the electrical requirements of other Fluidigm equipment, see respective equipment documentation.

Electrical Installation

Category II

C₁ Single-Cell Auto Prep System Electrical Requirements

Customer Location	Voltage (VAC)	Frequency-Hz	Maximum Current (A)*	Typical Average Power Consumption (W)
Japan	100 +/-10%	50-60 +/-1%	8.0	Idle: 40 Operating: 175
USA, Canada	115 +/-10%	50-60 +/-1%	8.0	Idle: 40 Operating: 175
Europe, Australia	230 +/-10%	50-60 +/-1%	3.7	Idle: 40 Operating: 175

Power Cord Requirements

Fluidigm will provide a country-specific power cord.

Customer Location	Minimum Wire Gauge (AWG)	Maximum Length (m)	Instrument End Plug	Receptacle End Plug
Japan, USA, Canada	14	2	IEC C13	Country specific
Europe, Australia	16	2	IEC C13	Country specific

Receptacle Requirements

When connecting this instrument to a receptacle, check with your facilities manager to make sure the circuit will not be overloaded. If you are connecting multiple instruments to the same electrical receptacle or circuit, be sure the sum of all the instruments' maximum current draw is within the circuit's current limit. Receptacles must be grounded.



CAUTION! Do not use extension cords.

Uninterruptible Power Supply Recommendation

If your C₁ Single-Cell Auto Prep System is installed in a region that has electrical voltage fluctuations exceeding +/- 10% of the normal value, protect the system with an uninterruptible power supply (UPS). Fluctuating voltage can compromise the C₁ Single-Cell Auto Prep System. The minimum requirements for the UPS to maintain power for one system are:

Disconnecting Power

In case of emergency, you must be able to immediately disconnect the main power supply to the instrument.

Step 4: Stocking the Site



IMPORTANT: Safety personnel at your company must ensure that:

- Safety policies to protect laboratory personnel from potential harm are established and are followed by personnel.
- All necessary safety devices and equipment are in the laboratory or in close proximity.

Required Safety Equipment

Fluidigm expects your laboratory to have safety policies in place to protect laboratory personnel from potential harm. We expect that appropriate safety practices are followed at all times.

Safety equipment that must be at the installation location includes:

- Adequate ventilation, including vent line/fume hood, if applicable
- Safety shower
- Eyewash station
- Biohazard waste container, if applicable
- Applicable SDSs
- Protection from potentially infectious biological material, hazardous chemicals, and radiation that may be present in the area where the Fluidigm service representative will be working
- Spill cleanup equipment
- First-aid equipment

- Eye and hand protection
- Fire extinguisher
 - You are responsible for providing an appropriate fire extinguisher for use on or near the C₁ Single-Cell Auto Prep System
 - The fire extinguishers must be appropriate for use on chemical and electrical fires and be approved by your local fire marshal (or similar entity having jurisdiction in your area)

Step 5: Receiving the System

Because the C₁ Single-Cell Auto Prep System weighs approximately 103 lbs/47 kg (160 lbs/ 73 kg crated), you will want to consider where it is going to be shipped and how you are going to get it to and into your laboratory.

Delivery and System Inspection

For new C₁ Single-Cell Auto Prep System installations, you can anticipate receiving:

- C₁ Single-Cell Auto Prep System, crated
- Instrument accessories, boxed
- Reagent Kit (if ordered)

Use this checklist to perform a check of all delivered components:

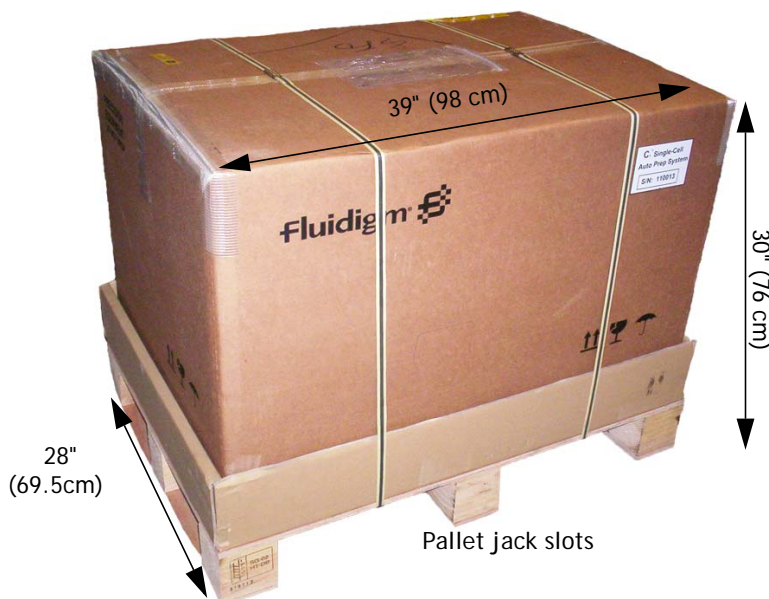
C ₁ Single-Cell Auto Prep System Checklist	
1	Check the packing list against the original order.
2	Check all boxes and crates for damage.
3	Note any damage and report it to the Fluidigm service representative.
4	Locate the Reagent Kit (if ordered) and unpack immediately. Store each kit component at the appropriate temperature according to the kit's instructions.

C₁ Single-Cell Auto Prep System Size and Weight Specifications

Specifications	C ₁ Single-Cell Auto Prep System
Packaged	
Weight	160 lbs (73 kg)
Dimensions	39L x 28W x 30H in. (98L x 69.5W x 76.H cm)
Unpackaged	
Weight	103 lbs (46.7 kg)
Dimensions	19L x 16W x 26H in. (48L x 41W x 66H cm)



PHYSICAL INJURY HAZARD! Do not attempt to lift or move this instrument and/or crates without the use of appropriate moving/lifting equipment.



C₁ Single-Cell Auto Prep System (crated)

Path Clearances



IMPORTANT: A clear path from the loading dock to the laboratory bench must be established. The path must accommodate the dimensions of the crate.

Make sure the path to the installation site has the following minimum clearances:

Crate Dimension	Minimum Clearance
Height	33 inches (84 cm)
Width	42 inches (107 cm)

Step 6: Placing the System at the Site

Remove all unnecessary materials from the proposed installation site prior to the arrival of the Fluidigm field service engineer.

Have the crated C₁ Single-Cell Auto Prep System at its permanent location prior to the arrival of a field service engineer. Wait for his/her arrival to begin unpacking the crate.

System Weight



PHYSICAL INJURY HAZARD! Do not attempt to lift or move any boxed or crated items unless you use proper lifting techniques. The crated C₁ Single-Cell Auto Prep System weighs ~160 lbs (~73 kg).

If you choose to lift or move the C₁ Single-Cell Auto Prep System after it has been installed, do not attempt to do so without the assistance of others and the use of appropriate moving equipment/proper lifting techniques. Improper lifting can cause physical injury.



CAUTION! Do not tip the C₁ Single-Cell Auto Prep System on end. Tipping damages the instrument hardware and electronics.

Installation

Before the install date, make sure you have done the following:

	Action
1	Removed all unnecessary materials from the proposed final installation site.
2	Received the C ₁ Single-Cell Auto Prep System and performed a visual check of the crate and containers.
3	Moved the crated and boxed equipment from the receiving location to the installation area.

Contact your Fluidigm representative if you require assistance with any of these steps.

Installation Time Estimate

Installation of the C₁ Single-Cell Auto Prep System is estimated to take one (1) day. Site issues and other factors may delay or extend the installation time.



HOT SURFACE! The C₁ Single-Cell Auto Prep System thermal cycler chuck gets hot and can burn your skin. Use caution when working near the chuck.

Technical Support

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