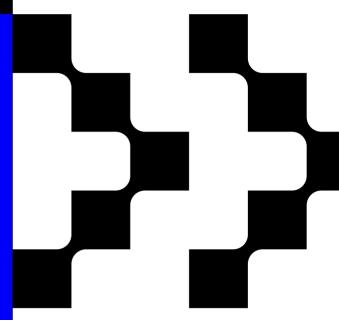
C.NEST®2.0

Enable bioreactor-like mixing in 96/24-well plates

A better culturing system for every cell



C.NEST 2.0		CYTEMA





C.NEST is a cell culture incubator designed to support superior cell growth and viability, facilitating cell expansion and cell line maintenance.

The system is applicable to many cell types, ranging from mammalian cells to microbes.







Patented mixing technology for 96/24-well plates

- ☑ Bioreactor-like mixing
- □ Homogeneous nutrients and higher oxygen transfer

Precisely-controlled incubation in four chambers

- □ Independent control for each chamber
- □ Constant monitoring of environmental conditions





The magic of CYTENA BPS mixing technology

Our patented reciprocating mixing technology makes effective mixing culture in 96/24-well plates possible.



Homogeneous nutrient



Higher oxγgen transfer rate



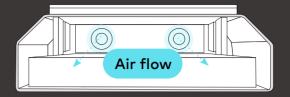
Maximum cell suspension



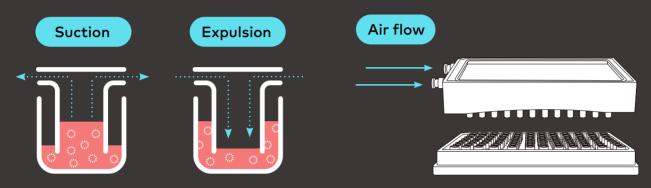
3D growing space



Elevate cell health effortlessly with our patented lid. With the oxygen transfer tubes engaging with each well, cells are offered a continuous oxygen supply to proliferate in a healthy environment.



NEST chamber

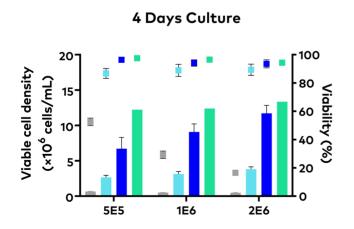


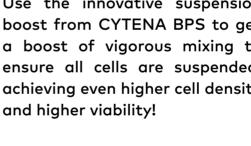
"in-well" mixing

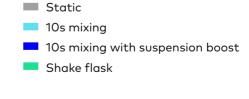
Patented lid and plate

Adjustable mixing pattern and ... Suspension boost

Our adjustable mixing control accommodates various cell lines. Use the innovative suspension boost from CYTENA BPS to get a boost of vigorous mixing to ensure all cells are suspended, achieving even higher cell density







Culture condition:

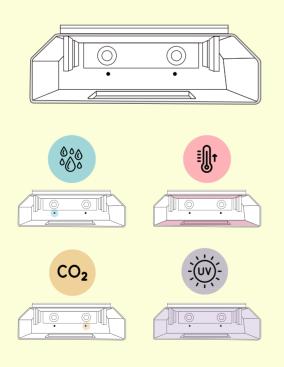
- Cell line: CHO-S cells P42
- Medium: BalanCD
- Working Volume: 1.4 mL/well

Miniature incubation chambers

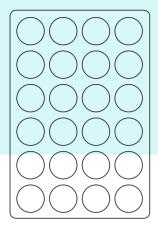
Precise and independent control

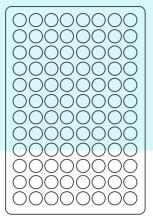
- ☑ Water reservoir to maintain humidity
- → Temperature control
- ∠ CO₂ level control
- □ Humidity monitoring
- ∪V light sterilization

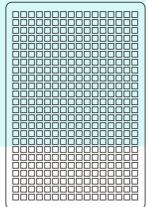




The temperature and CO₂ levels can be monitored and adjusted in each NEST chamber. Humidity levels are monitored in real time and can be maintained by adding distilled water into the reservoir. UV sterilization can be activated independently for each NEST chamber.







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Flexible for both mixing and static culture

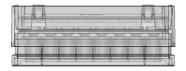
C.NEST allows for different settings and mixing patterns in the four independent chambers. One chamber can fit one 96 or 24-well plate and its corresponding patented lid for mixing culture.

The chamber height also allows for one 24well plate or two 96 or 384-well plates to be placed in one chamber for static culture. Enjoy the flexibility of conducting mixing and static culture in parallel.

Mixing Culture



24-well plate with NEST lid



96-well plate with NEST lid

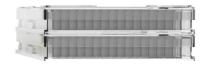
Static Culture



24-well plate with standard lid



96-well plate with standard lid



384-well plate with standard lid



Scalable design

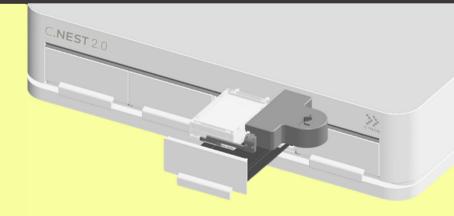
C.NEST can be customized to provide the capacity you require, maximizing efficiency and productivity. Scale experiments seamlessly with up to 16 chambers. Run up to four C.NEST in parallel and control all chambers effortlessly in one software interface.



Automation compatible

C.NEST 2.0

Tailor-made to integrate with your robotic arm, our system is fully compatible with SiLA 2.0 and can easily interface with third-party scheduling software for a streamlined and efficient workflow.

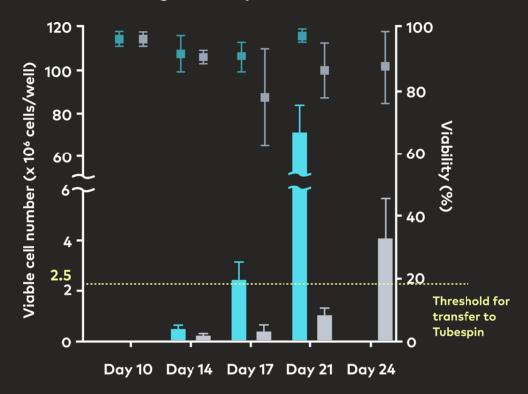


Discover our featured application

Over 50 % time-saving in cell line development

Save cost, save labor, save time

C.NEST single cell expansion workflow



Single cell seeding \longrightarrow Day 10 \rightarrow Day 14 \rightarrow Day 17 \rightarrow Day 21 \rightarrow Day 24						
C.NEST	384 wp	96 wp	24 wp	Tub	e spin	
Traditional	384 wp	96 wp	24 wp	24 wp	6 wp	Tube spin

C.NEST's proven result across diverse cell types

∠ CHO cell ∠ iPSC

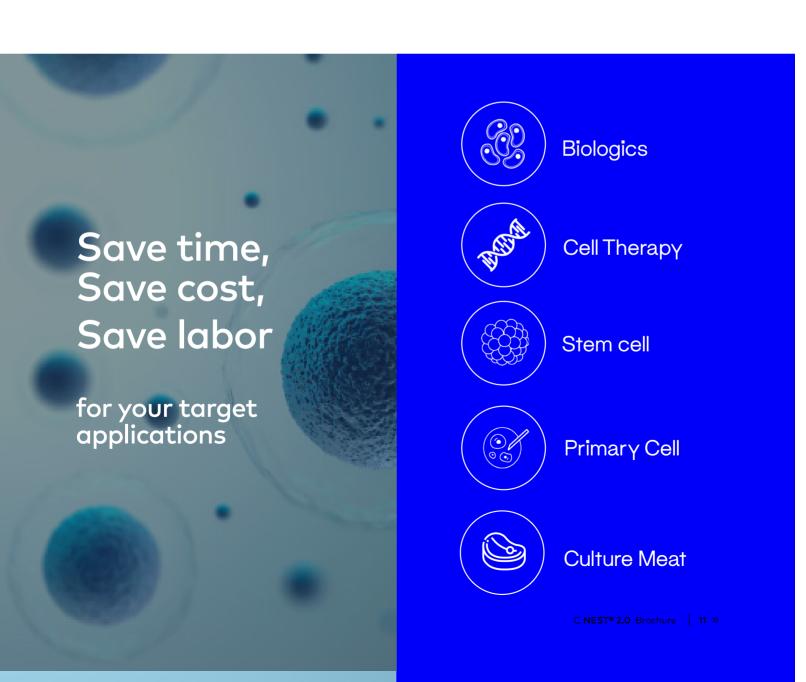
∠ HEK cell ∠ PBMC

→ Hybridoma cell → T cell

✓ Stem cell ✓ Spheroid

∠ Cancer cell
∠ Organoid

→ E.coli
 → Pichia pastoris



C.NEST 2.0

Specification

General characteristics

Description	Value	Unit	
Dimensions			
Width	750	mm	
Depth	460	mm	
Height	190	mm	
Weight	33	kg	
Electrical characteristics			
Input voltage	100-240	Vac	
Input voltage net tolerance	±10	%	
Input voltage frequency	50/60	Hz	
Max. input current	5.9-2.7	А	
Power mains supply voltage fluctuations	±10	%	
Installation category	CAT II	-	
Input fuse type	250VAC, 8A, time-lag	-	

Basic configuration

Description	Value	Unit	
Incubation			
Temperature control range	RT+5 – 45 ± 0.2	°C	
CO ₂ level control range	1 – 20 ± 0.3	%	
Humidity monitoring range	0 - 100 ± 5 (at 37°C)	%	
Culture			
Mixing rate (24-well plate)	10 – 50 (± 5%)	sec	
Mixing rate (96-well plate)	10 – 50 (± 5%)	sec	
Working volume (24-well plate)	1,000–1,600	μl	
Working volume (96-well plate)	150-200	μl	
Working volume (384-well plate)	25-80	μl	

 $^{^{\}star}$ Each value above is specified with one standard deviation from its mean (M±1SD)

C.NEST 2.0

Ordering information

C.NEST Instrument

Product No.	Product Name	Description
CBS161101022	C.NEST 2.0	 4 C.NEST 2.0 cell culture chambers C.NEST 2.0 Software Standard warranty (12 months from date of installation) Origin: Taiwan
CBS161101006	C.NEST 2.0 - Automation Compatible Version	 4 C.NEST 2.0 cell culture chambers with customized automation compatible format C.NEST 2.0 Software Standard warranty (12 months from date of installation) Origin: Taiwan

C.NEST Consumables

Product No.	Product Name	Description
D16110025167	C.NEST Cell Culture Kit - Greiner, 24 Well, 20 Sets	 20 Greiner CELLSTAR® Cell Culture Multiwell Plates, 24 Well, Single Packed (No.662102/662160) 20 C.NEST Lids, 24 Well, Single Packed
D16110025168	C.NEST Cell Culture Kit - Corning, 96 Well, 20 Sets	 20 Corning Cell Culture Multiwell Plates, 96 Well, Single Packed (No.3599) 20 C.NEST Lids, 96 Well, Single Packed

Customer care services

Product No.	Product Name	Description
CBS10304	X.NEST System Qualification Protocol (EU Onsite) – Document material	Documents for the end user to perform IQ/OQ for X.NEST
CBS10305	X.NEST System Qualification Protocol (Outside EU) – Service	IQ/OQ for X.NEST performed by a CYTENA-trained service engineer or FAS
CBS161101008	Standard Customer Care Package C.NEST – 1 year	 Repairs, spare parts, and travel to site* Software/firmware upgrade Unlimited support and diagnosis
CBS161101005	Premium Customer Care Package C.NEST – 1 year	 Repairs, spare parts, and travel to site* Software/firmware upgrade Unlimited support and diagnosis Annual Preventive maintenance Application support Priority response** Remote user refresher training, as requested***

^{*}Warranty only applies to any instrument failure present at the time of installation/purchase. Repairs, spare parts, and travel to site are included.

Application support, normal wear and tear, and cleaning or preventive maintenance are not included.

** Priority response guarantees responses to your service requests within 48 hours.

***Up to 2 per year — 1-hour sessions.



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