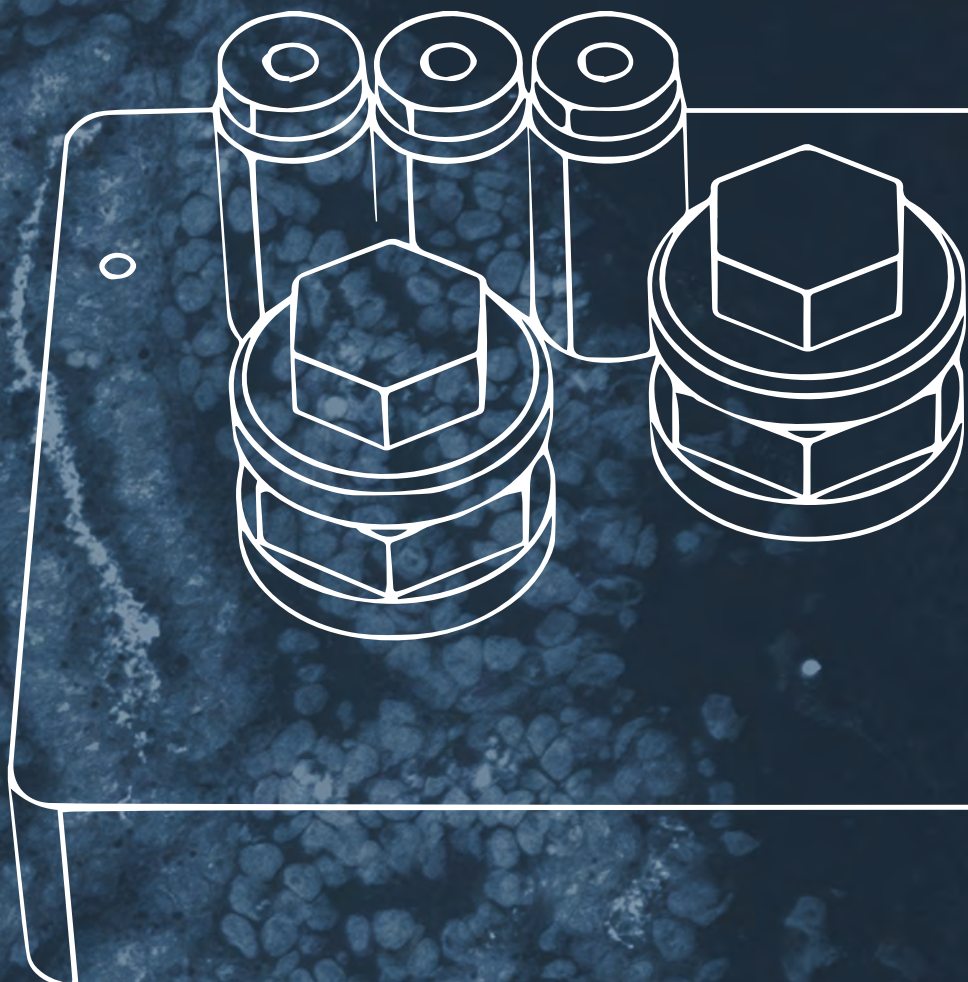


www.redefining-research.de



HUMIMIC

Product overview **2022**



The company

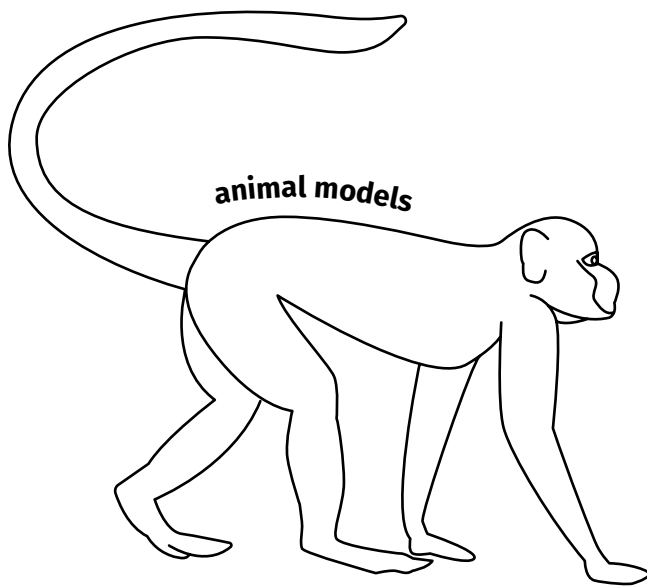


TissUse is a Berlin, Germany-based, biotechnology company who has developed a unique "Multi-Organ-Chip" platform that provides unparalleled preclinical insight on the systemic level using human tissue. This enabling technology platform consists of a miniaturized construct that closely simulates the activity of multiple human organs in their true physiological context. TissUse's **HUMIMIC Chips** provide a completely new approach to predict, for example, toxicity, ADME profiles and efficacy *in vitro*, reducing and replacing laboratory animal testing and streamlining human clinical trials.

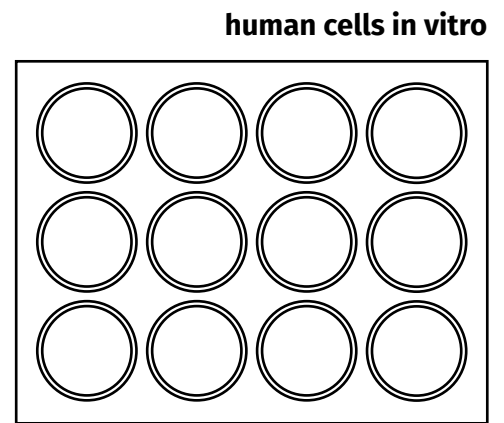
TissUse's technology has been utilized in a large variety of applications including drug development, cosmetics, food and nutrition and consumer products since 2012.



The problem: lack of predictability

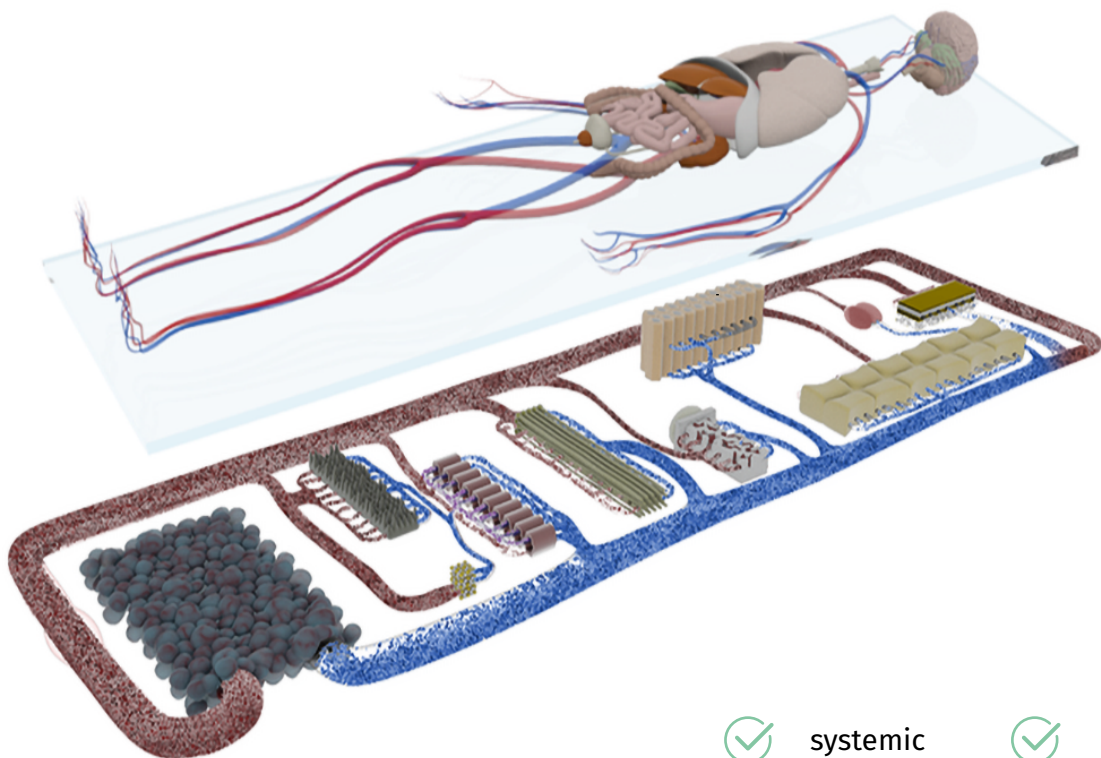


✓ systemic ✗ human



✗ systemic ✓ human

The solution: universal physiological template (UPT)

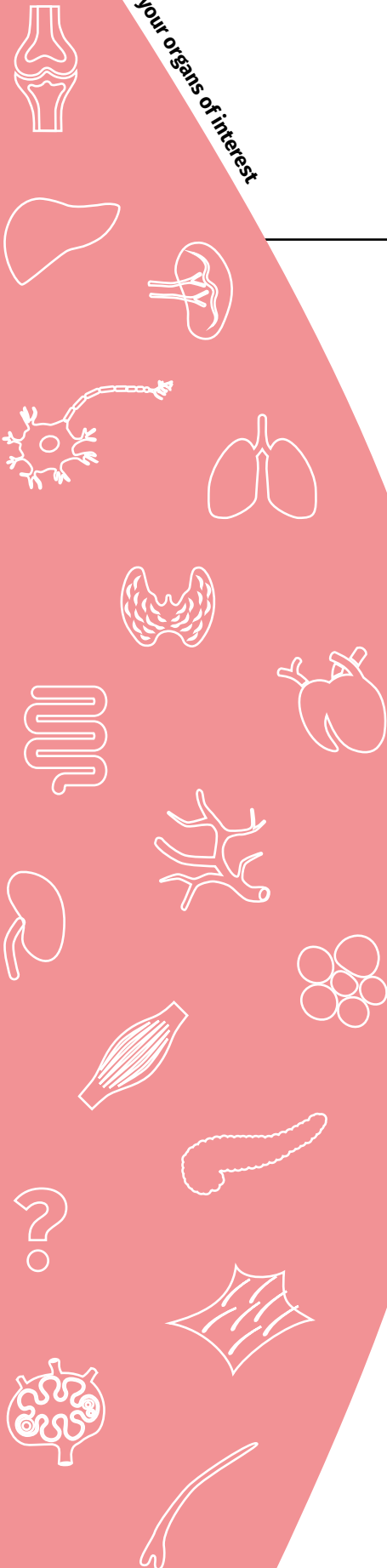


✓ systemic ✓ human

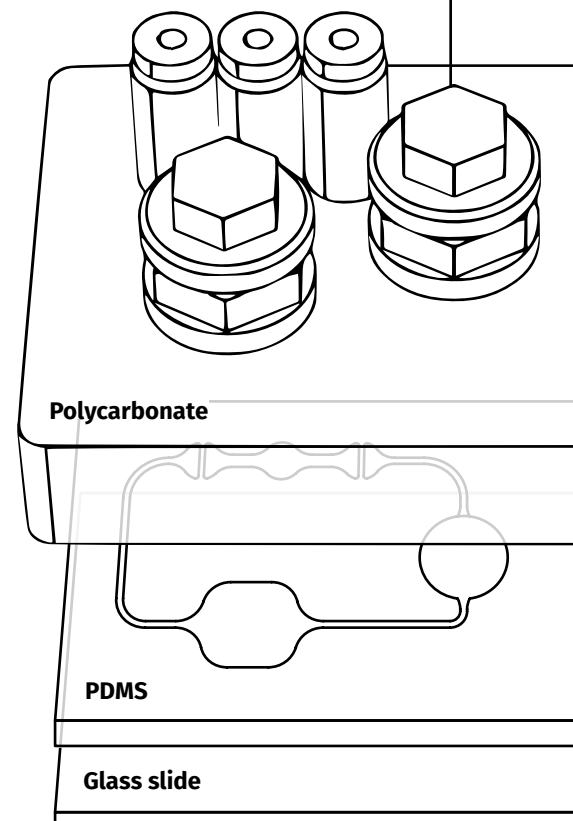
The technology

TissUse's proprietary technology platform is a miniaturised construct that closely simulates the activity of **multiple human organs** in their **true physiological context** at the **smallest possible biological scale**. This technology provides unprecedented preclinical insight on a systemic level using human tissue and enables the direct prediction of effects of chemicals and their metabolism on near real-life models.

Choose your organs of interest

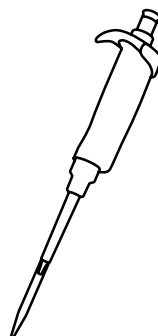


Tissue cultures 100,000-fold smaller than original organs

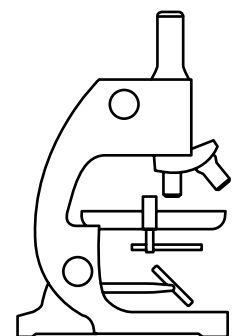


Microfluidic chip format of a standard microscopic slide

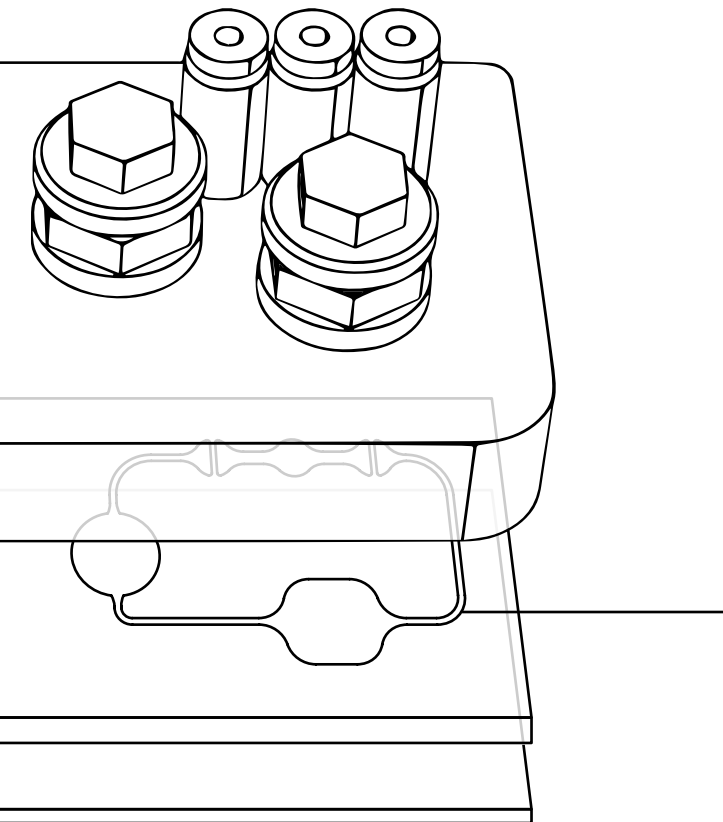
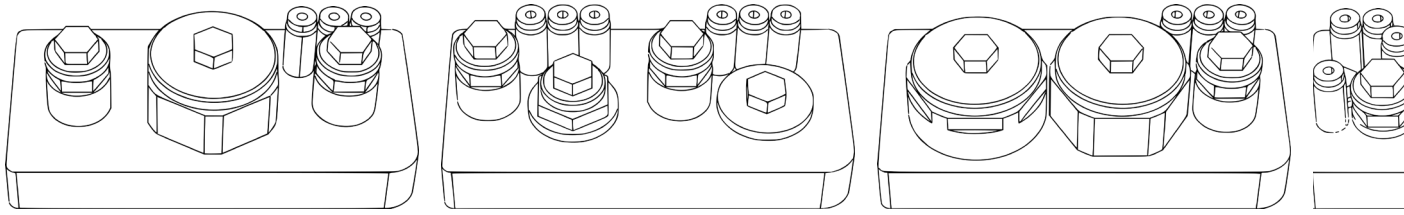
Designed to work
with existing lab equipment



Compatible with life tissue imaging



Rapid prototyping of any relevant chip design



Dynamic circulation of media/blood with vascular perfusion

On-chip micro-pump and near to physiological tissue to fluid ratio

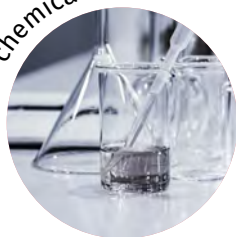
Variable physiological shear stress applicable

Broad field of applications

pharmaceuticals



chemicals



cosmetics



food safety



personalized medicine



The brand



Under this brand TissUse combines a range of superpowers that make research easier, faster, and better. **HUMIMIC** products support you in developing pharmaceutical, chemical, and cosmetic products. Our unique, patent-protected technology simulates the activity of multiple human organs in their true physiological context, hence the brand name of “HUMIMIC” – a concept of art of “HUMAN” and “MIMIC.” After all, that is exactly what our **HUMIMIC** heroes do for you.



Devices

HUMIMIC Devices act as the hub and control center of each and every mission. This is where the Chips are controlled and monitored. Whether a simple test series or complex experiments: we have the right equipment for every application. As a result, you can customize your setup to reflect your needs.

Chips

HUMIMIC Chips are the linchpin of our technology – the real superpower. They pave the way for your research and bring science to life: various organ models can be transferred directly onto the **HUMIMIC** Chips, where they deliver reliable research results.

Accessories

Sometimes, even superheroes need a little help. That's why you can complement your **HUMIMIC** technology with useful accessories to make your work easier, helping you to focus on what really matters: your science.

Contents

1	HUMIMIC Devices.....	1-1
1.1	HUMIMIC Starter	1-1
1.2	HUMIMIC AutoLab.....	1-2
2	HUMIMIC Chips.....	2-5
2.1	HUMIMIC Chip2 96-well & HUMIMIC Chip2 24-well	2-5
2.2	HUMIMIC Chip3 & HUMIMIC Chip3plus.....	2-7
2.3	HUMIMIC Chip4.....	2-9
2.4	Overview of HUMIMIC Chip characteristics.....	2-10
2.5	HUMIMIC Chip culture compartment & fluid types	2-11
2.6	HUMIMIC Chip lids.....	2-12
2.7	Compatibility of HUMIMIC Chip culture compartments with cell culture inserts & tools	2-13
3	HUMIMIC Accessories.....	3-17
3.1	HUMIMIC HeatSupport	3-17
3.2	HUMIMIC Holder.....	3-17
3.3	Tubes and tube equipment.....	3-18
3.4	Tools.....	3-19
3.5	Sponceram® cylinders.....	3-20
3.6	Dynarray® microcavity membranes.....	3-20
3.7	HUMIMIC InjectionKit.....	3-21
3.8	HUMIMIC iPSCs	3-23
4	Technical Specifications.....	4-27
4.1	HUMIMIC Starter	4-27
4.2	HUMIMIC HeatSupport	4-28
5	Contact	5-30



HUMIMIC Devices

1 HUMIMIC Devices

1.1 HUMIMIC Starter

Compact yet powerful, the **HUMIMIC Starter** is your ticket to the world of superheroes. Whether as a stand-alone unit or in a combination of multiple devices, it can do everything from basic research to complex studies.

Our **HUMIMIC Chips** require a Control Unit. The **HUMIMIC Starter** delivers 24 pre-calibrated pneumatic connectors for optimal operation of the on-chip pumps. Pumping pressure can be continuously adjusted and is then set automatically by the **HUMIMIC Starter**. Moreover, the user friendly 7" touch display enables adjustment of pumping frequencies from 3 to 120 beats per minute. This product is also equipped with a USB-port for easy management of pressure profiles and transfer of data. The **HUMIMIC Starter** is compatible with **HUMIMIC Chip2** 96-well, **Chip2** 24-well, **Chip3**, **Chip3plus**, and **Chip4**.

Together with your **HUMIMIC Starter** you will receive all the basic tools and accessories required for the operation of your **HUMIMIC Chips**. You will find a detailed list on page 4-27. In addition, you can order desired tools and accessories individually.

Features

- Operates up to 8x **HUMIMIC Chip3/Chip3plus**, 4x **HUMIMIC Chip2/Chip4** or a combination of these
- 24 pre-calibrated pressure connectors for optimal volume flow in the Chips
- Pressure and vacuum can be continuously adjusted via the user interface
- 7" touch display
- 3 connections for additional devices like the **HUMIMIC HeatSupport** and **HUMIMIC ActSense**
- Summary of all technical specifications: see page 4-27



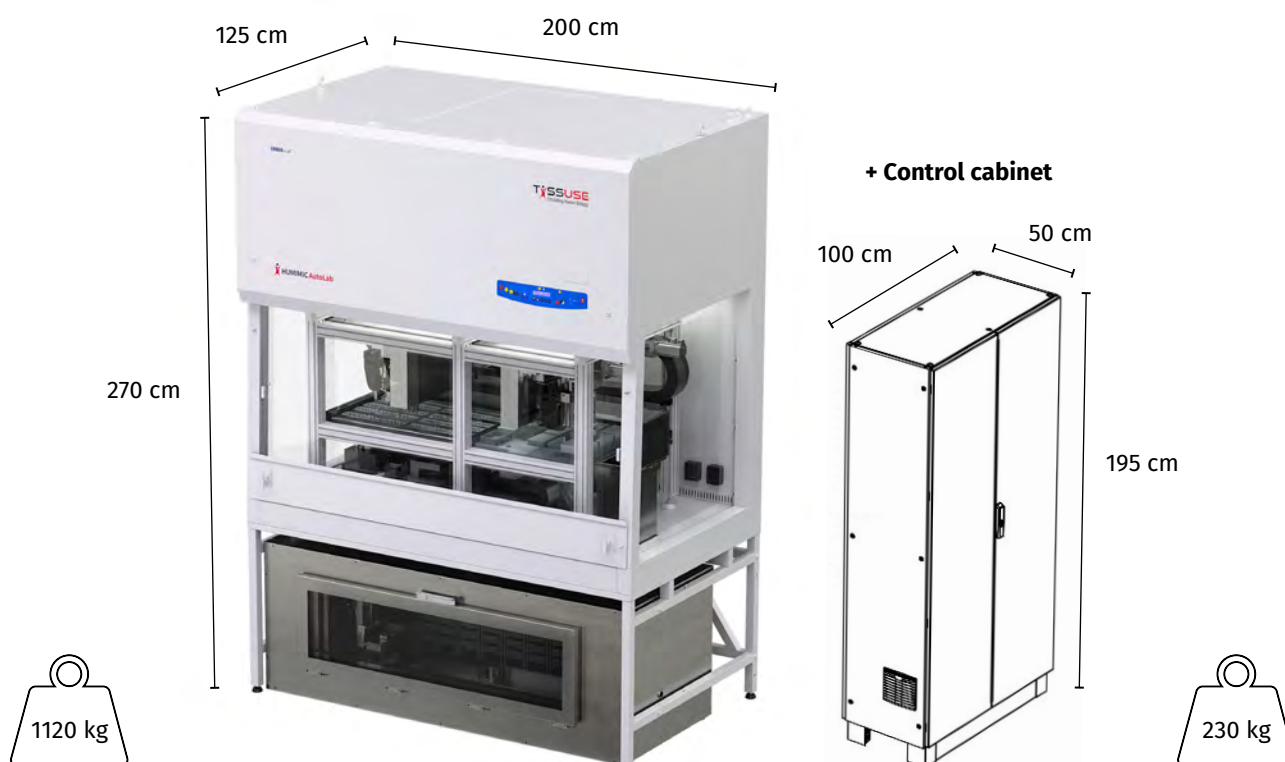
PRODUCT CODE	NAME	DESCRIPTION
D01	HUMIMIC Starter	Control Unit for optimal operation of the on-chip pumps of our HUMIMIC Chips .

1.2 HUMIMIC AutoLab

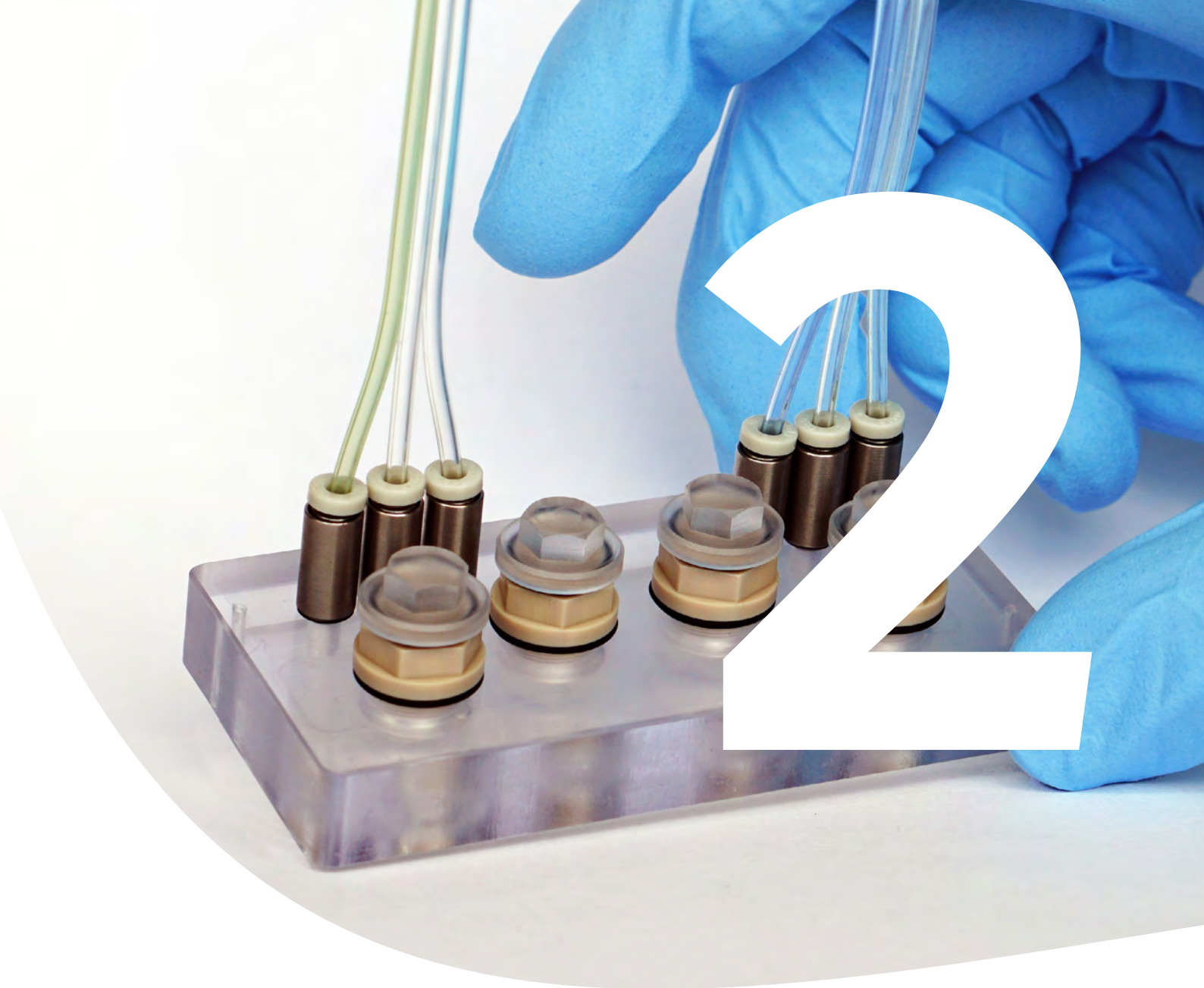
Concentrated research power to meet the biggest challenges and enable large-scale experiments. The **HUMIMIC AutoLab** is a small research lab that allows for the automatic operation of up to 24 Multi-Organ-Chips in parallel. It can do everything the **HUMIMIC Starter** can do, and a lot more in an automated and more convenient way. The system works with maximum efficiency and enables controlled conditions while operating and collecting data from our **HUMIMIC Chips**. Chips are placed in a sterile internal compartment with automatic heating with the system supplying nutrient solution to the chips for the duration of the experiments. Substances will be automatically applied according to a specified dosing protocol. Imaging data can be recorded by an integrated bright-field and fluorescence microscope. The automatic analysis of Multi-Organ-Chips ensures a high degree of autonomy and guarantees consistent quality of the measurements. The **HUMIMIC Autolab** is compatible with **HUMIMIC Chip 2, 3 and 4**.

Features

- Separate incubation of up to 24 Multi-Organ-Chips between 36 °C and 40 °C
- Sterile environment in a class II safety cabinet
- Automatic storage of samples, substances and media at 4 °C
- High precision 3-axial positioning system with two portals for chip operation and supply of consumables



PRODUCT CODE	NAME	DESCRIPTION
D02	HUMIMIC Autolab	Small research lab that allows for the automatic operation of up to 24 HUMIMIC Chips in parallel.



HUMIMIC Chips

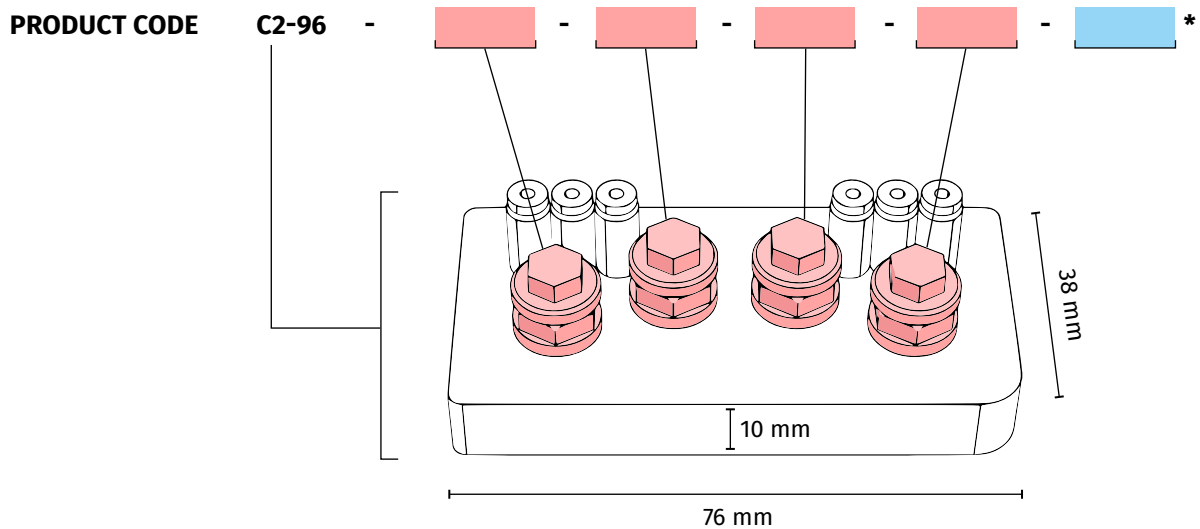
The success of any mission depends on having the right equipment. We offer chips that are perfectly tailored to your needs and your **HUMIMIC Devices**. The choice of tissue source is yours: Regardless of whether you are using cell lines, primary cells, biopsies, tissue sections, or commercially available models, **HUMIMIC Chips** provide a reliable platform for all your experiments. Interested in working with iPSCs? You can conveniently combine **HUMIMIC iPSCs** with **HUMIMIC Chips**.

2 HUMIMIC Chips

2.1 HUMIMIC Chip2 96-well & HUMIMIC Chip2 24-well

- Simultaneous cultivation of up to two different organ models
- Efficient, lifelike supply of all tissue models
- Flexible combination of different organ models
- Compatible with various 3D cell culture models (e.g. primary cells, cell lines, iPS-based models, biopsies, cell culture insert based models)
- Adjustable physiologically relevant shear stress
- Designed for long-term experiments
- Rapid prototyping for specific customer needs

HUMIMIC Chip2 96-well



MICROFLUIDIC DESIGN

Microfluidic volume

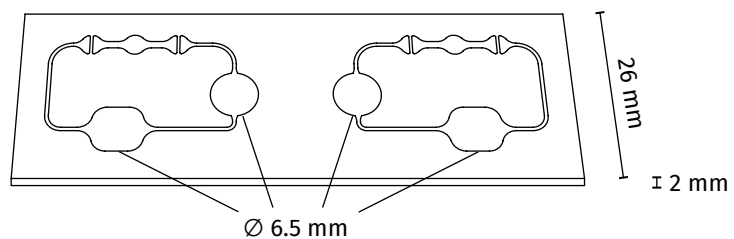
5 μ l

Microfluidic surface

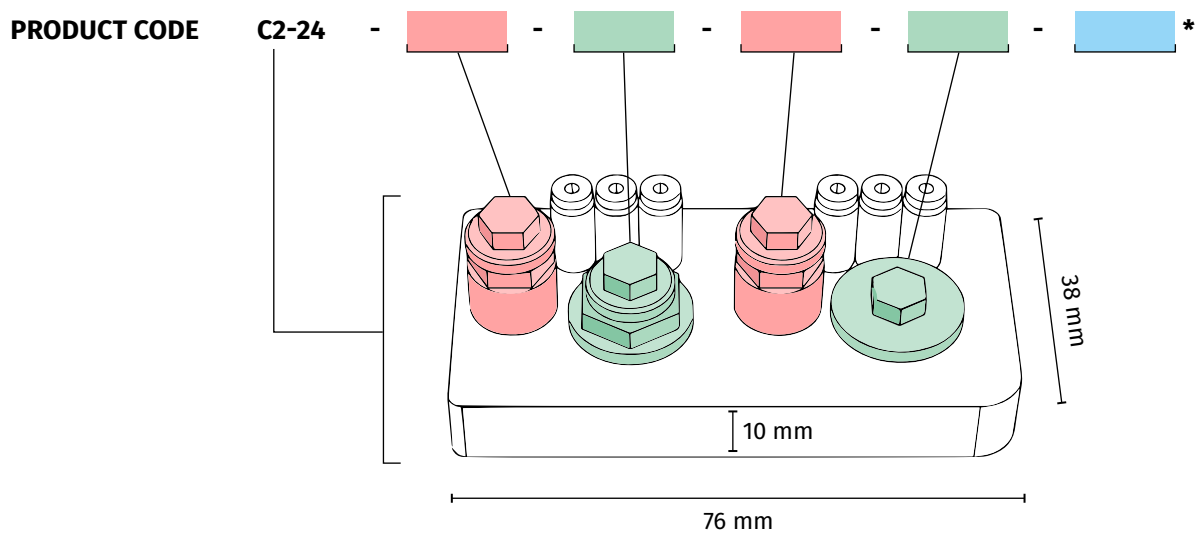
115 mm²

Channel height / width

100 μ m / 500 μ m



* For further information on **HUMIMIC Chip** culture compartment & fluid types, simply move the cursor over the colored product code fields (if your browser supports interactive PDF forms) or see pp. 2-11 and 2-12.

HUMIMIC Chip² 24-well**MICROFLUIDIC DESIGN**

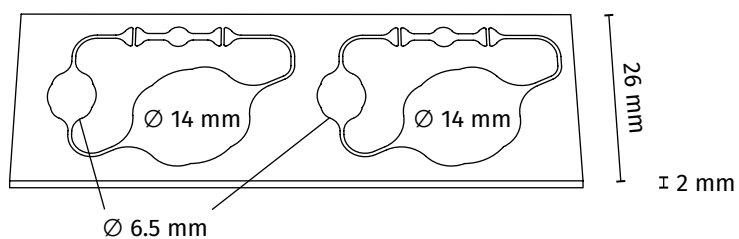
Microfluidic volume

6.5 μ l

Microfluidic surface

145 mm²

Channel height / width

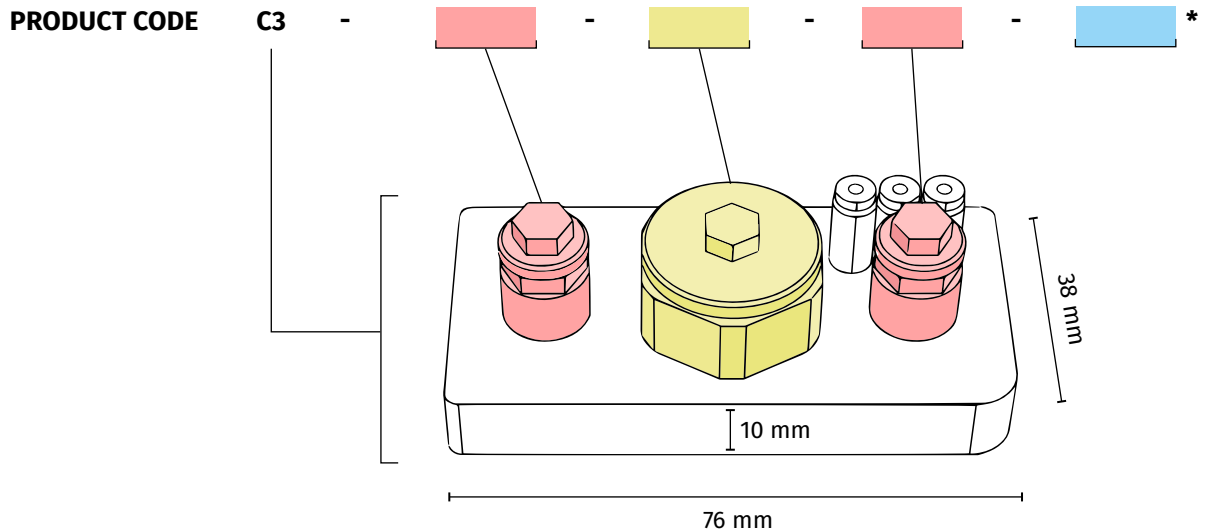
100 μ m / 500 μ m

* For further information on **HUMIMIC Chip** culture compartment & fluid types, simply move the cursor over the colored product code fields (if your browser supports interactive PDF forms) or see pp. 2-11 and 2-12.

2.2 HUMIMIC Chip3 & HUMIMIC Chip3plus

- Simultaneous cultivation of up to three organ models in a joint microfluidic circuit
- Efficient, lifelike supply of up to three organ models
- Flexible combination of different organ models
- Compatible with various cell cultures (e.g. primary cells, cell lines, iPS-based models, biopsies, cell culture insert based models)
- Adjustable physiologically relevant shear stress
- Designed for long-term experiments
- Rapid prototyping for specific customer needs

HUMIMIC Chip3

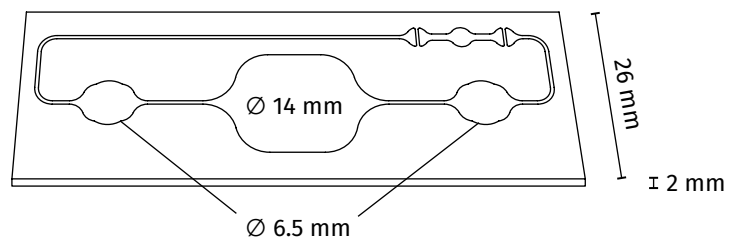


MICROFLUIDIC DESIGN

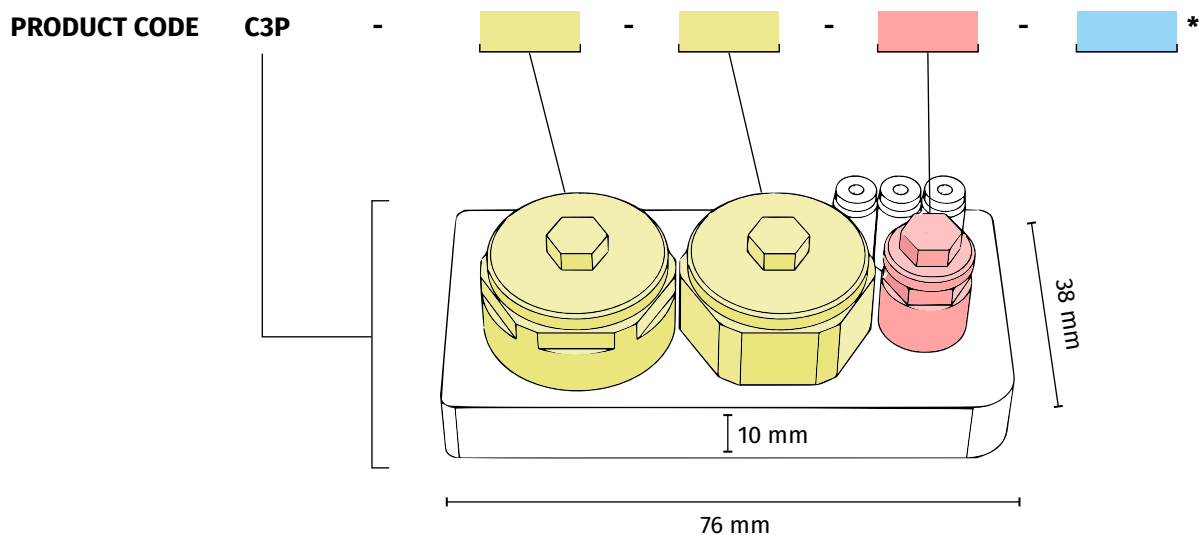
Microfluidic volume
10 μ l

Microfluidic surface
235 mm²

Channel height / width
100 μ m / 500 μ m



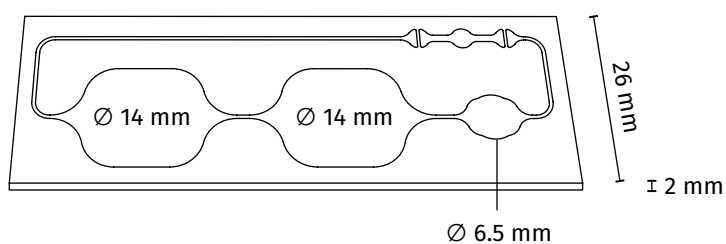
* For further information on **HUMIMIC Chip** culture compartment & fluid types, simply move the cursor over the colored product code fields (if your browser supports interactive PDF forms) or see pp. 2-11 and 2-12.

HUMIMIC Chip³plus**MICROFLUIDIC DESIGN**

Microfluidic volume
11 μ l

Microfluidic surface
255 mm²

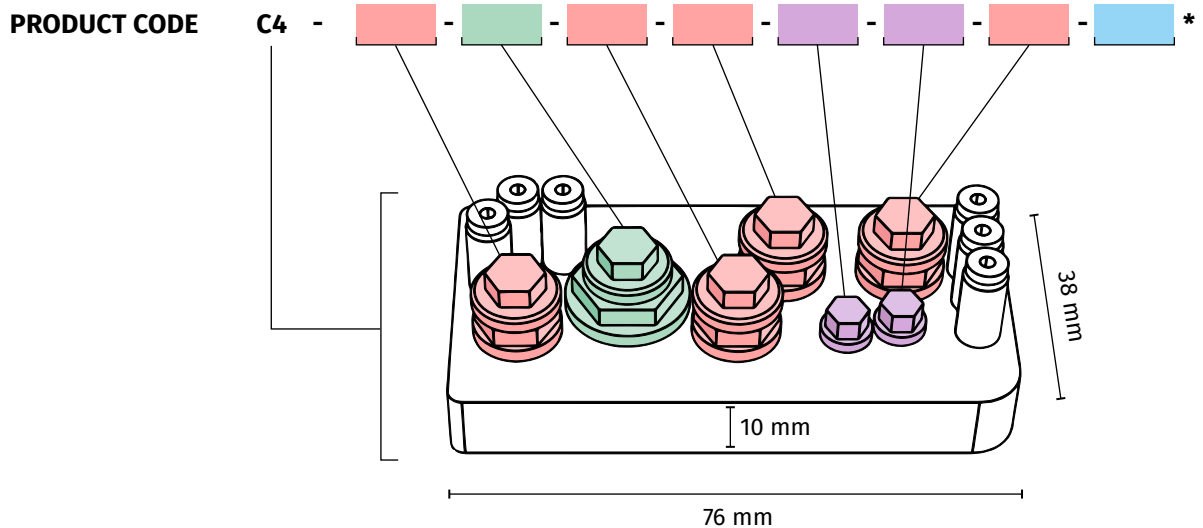
Channel height / width
100 μ m / 500 μ m



* For further information on **HUMIMIC Chip** culture compartment & fluid types, simply move the cursor over the colored product code fields (if your browser supports interactive PDF forms) or see pp. 2-11 and 2-12.

2.3 HUMIMIC Chip4

- Efficient, lifelike tissue nutrition of up to four organ models
- Supports relevant PK/PD modeling for QIVIVE
- Predicting the ADMET profile (adsorption, distribution, metabolism and excretion) of substances
- Enables modelling of complex disease models
- Designed for long-term experiments
- Adjustable physiologically relevant shear stress



MICROFLUIDIC DESIGN

Microfluidic volume

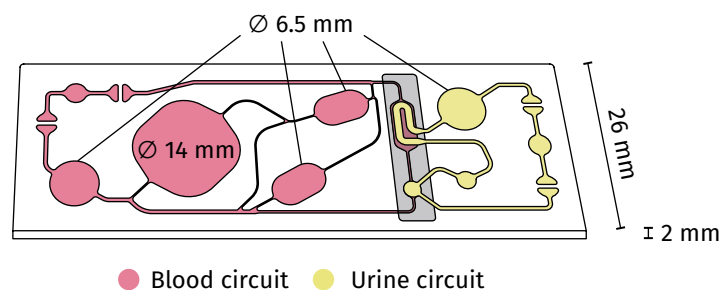
● 32.5 μl ● 49.5 μl

Microfluidic surface

● 465 mm^2 ● 240 mm^2

Channel height / width

100 μm / 500 μm



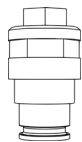

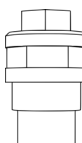

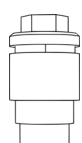

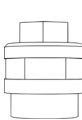

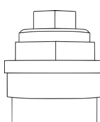


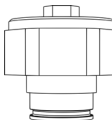

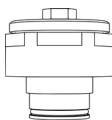
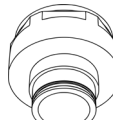
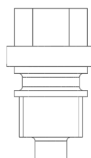

* For further information on **HUMIMIC Chip** culture compartment & fluid types, simply move the cursor over the colored product code fields (if your browser supports interactive PDF forms) or see pp. 2-11 and 2-12.

2.4 Overview of **HUMIMIC Chip** characteristics

	HUMIMIC Chip2 96well	HUMIMIC Chip2 24 well	HUMIMIC Chip3	HUMIMIC Chip3plus	HUMIMIC Chip4
Microfluidic volume	5 µl	6.5 µl	10 µl	11 µl	<div>● 32.5 µl</div> <div>● 49.5 µl</div>
Microfluidic surface	115 mm ²	145 mm ²	235 mm ²	255 mm ²	<div>● 465 mm²</div> <div>● 240 mm²</div>
Channel height	100 µm	100 µm	100 µm	100 µm	100 µm
Channel width	500 µm	500 µm	500 µm	500 µm	500 µm

2.5 HUMIMIC Chip culture compartment & fluid types

Types of culture compartment

	NAME	DESCRIPTION		
01	Threadfit 96 TH	Cell culture insert holder compatible with Corning 96-well Transwell® inserts with screw lid.* Can also be used as a medium reservoir for up to 350 µl.		
02	Threadfit 96 MH	Cell culture insert holder compatible with Millipore 96-well Millicell® inserts with screw lid.*		
03	Threadfit 96 SH	Cell culture holder for Sponceram® scaffolds with screw lid. Can also be used as a medium reservoir for up to 700 µl.		
04	Threadfit 96 LH	Lid holder with screw lid. Can also be used as a medium reservoir for up to 300 µl.		
05	Threadfit 24 MH	Cell culture insert holder compatible with Millipore 24-well Millicell® standing inserts with screw lid.*		
05				
06	Airfit 24 TH	Cell culture insert holder compatible with Corning 6.5 mm Transwell® inserts with airpermeable lid. AirFit is recommended for air exposed tissue models and can only be used once per circuit.*		
07	Threadfit 24 TH	Cell culture insert holder compatible with Corning 6.5 mm Transwell® inserts with screw lid.*		
08	Threadfit 24 R	Medium reservoir 24-well size for up to 3 ml with screw lid.		
09	Threadfit 2.5 CL	Screw lid for 2.5 mm culture compartment in HUMIMIC Chip4. The lid is screwed directly into the adapter plate, no extra compartment needed.		

* see pp. 2-13 and 2-14 for more information on compatibility

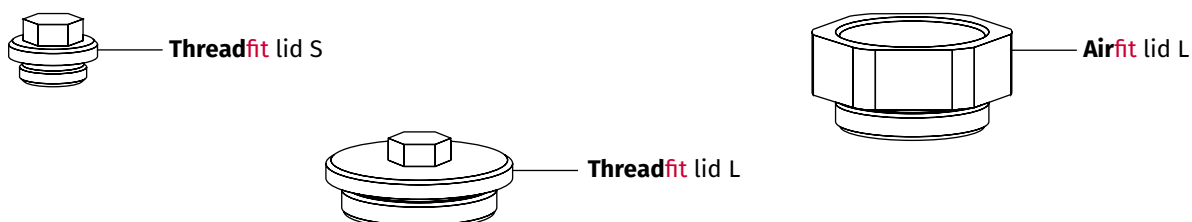
Fluid types

Chips come prefilled with Dulbecco's Phosphate-Buffered Saline (DPBS) without Calcium and Magnesium. Please select the appropriate fluid type from the list below.

	ANTIBIOTICS	DESCRIPTION
WO	WithOut	Chips are filled with DPBS without any antibiotics. This may reduce shelf life of the chips.
PS	Penicillin/Streptomycin	Chips are filled with DPBS supplemented with 1% Penicillin/Streptomycin
GA	Gentamicin/Amphotericin B	Chips are filled with DPBS supplemented with 0.01% Gentamicin/ 0.1% Amphotericin B

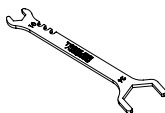
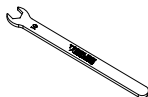
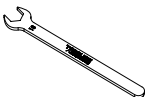
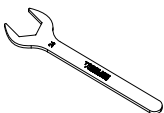


2.6 HUMIMIC Chip lids

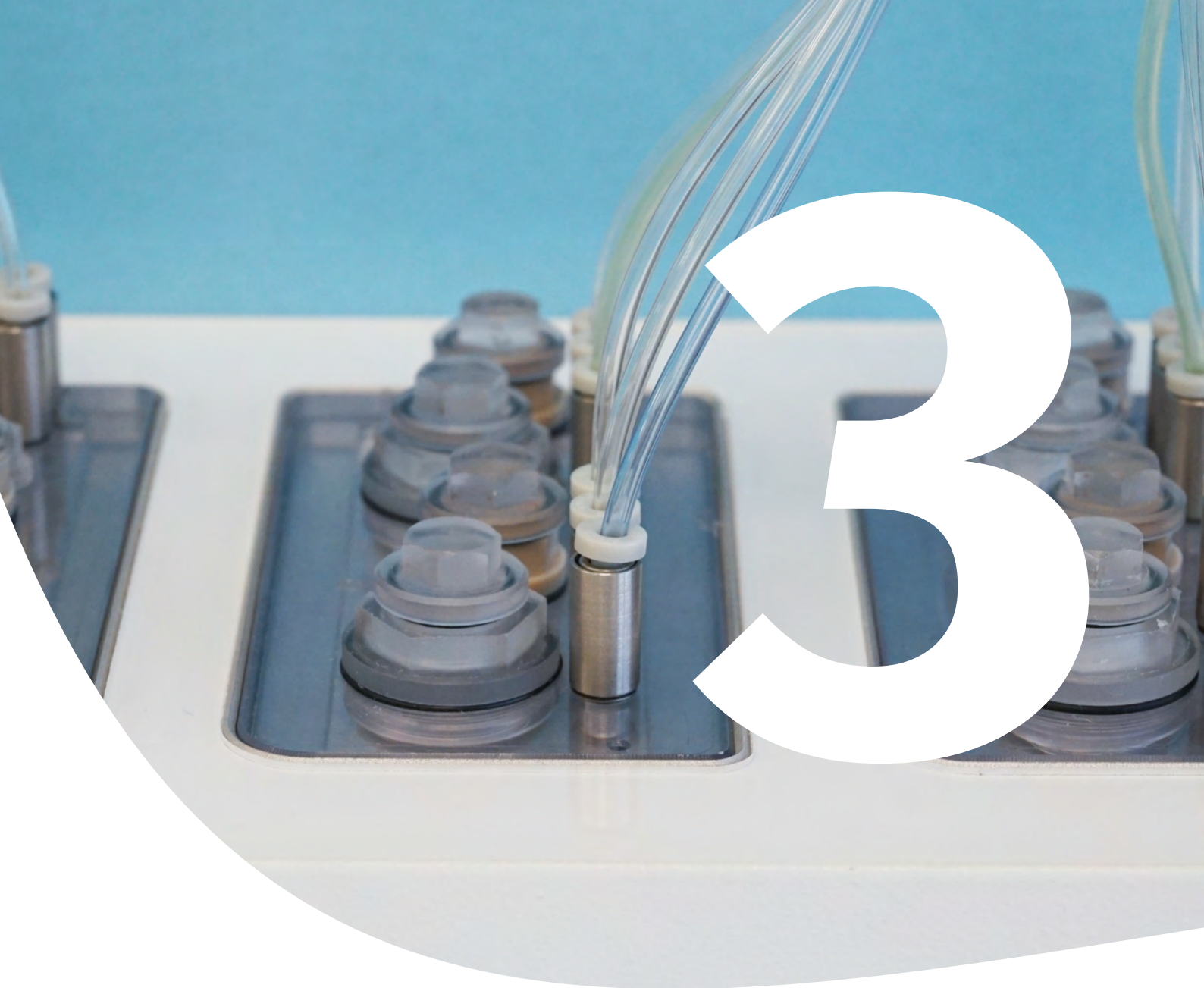
All **HUMIMIC Chips** are equipped with the respective lids, suitable for the compartments you choose. If you need some additional lids, you can order them in packs of 10, 20 or 50 pieces.



PRODUCT CODE	NAME	DESCRIPTION
L01	Threadfit lid S	Airtight screw lids to close any 96-well HUMIMIC Chip culture compartment (product codes 01 to 04), as well as the Threadfit 24 MH (product code 05).
L02	Threadfit lid L	Airtight screw lids to close the 24-well HUMIMIC Chip culture compartments Airfit TH 24, Threadfit 24 TH and Threadfit 24 R (product codes 06 to 08). For medium exchange, it may be necessary to close the Airfit TH 24 with an airtight lid, to prevent unwanted medium flow from one compartment to another.
L03	Airfit lid L	Gas permeable screw lids to close the 24-well HUMIMIC Chip culture compartment Airfit TH 24 (product code 06).

* customized solutions for all other commercially available insert types possible

Tools						HUMIMIC Chip culture compartments
HUMIMIC 3in1Tool	HUMIMIC Wrenches			Hexagonal socket wrenches		
						
	10 mm	13 mm	24 mm	7 mm	5 mm	
✓	✓			✓		01 Threadfit 96 TH
✓	✓			✓		02 Threadfit 96 MH
✓	✓			✓		03 Threadfit 96 SH
✓	✓			✓		04 Threadfit 96 LH
		✓		✓		05 Threadfit 24 MH
			✓			06 Airfit 24 TH
✓			✓	✓		07 Threadfit 24 TH
✓			✓	✓		08 Threadfit 24 R
					✓	09 Threadfit 2.5 CL

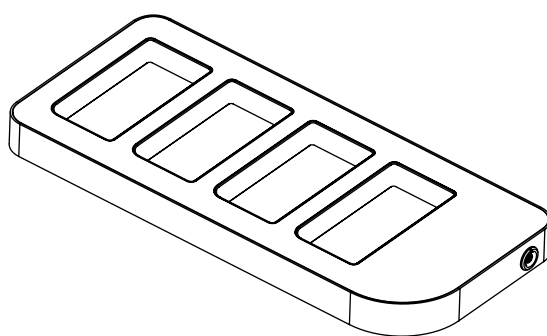


HUMIMIC Accessories

3 HUMIMIC Accessories

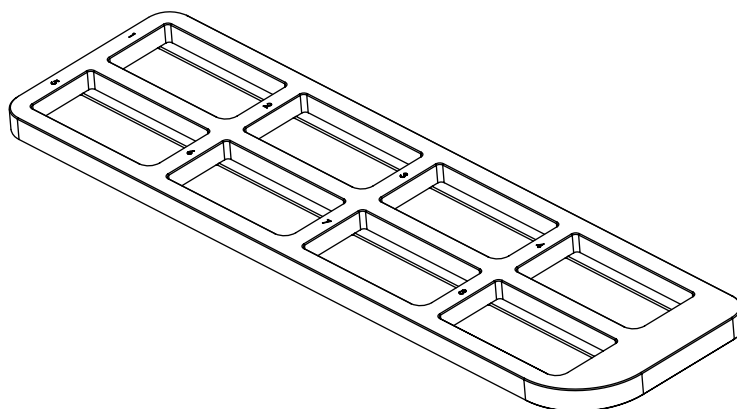
3.1 HUMIMIC HeatSupport

The cultivation of cells at regulated temperature is a prerequisite for many experiments in order to ensure reproducible and standardized conditions. The **HUMIMIC HeatSupport** makes it possible to operate chips outside an incubator - a big advantage, since the incubator atmosphere is not optimal for numerous applications. Operation of the **HUMIMIC HeatSupport** in combination with the HUMIMIC Starter allows an independent temperature control of up to 4 chips from room temperature up to 42 °C - ideal to simulate different temperatures in one experiment. Since the chips can be operated in combination with a microscope using **HUMIMIC HeatSupports**, imaging applications are also easy to implement.



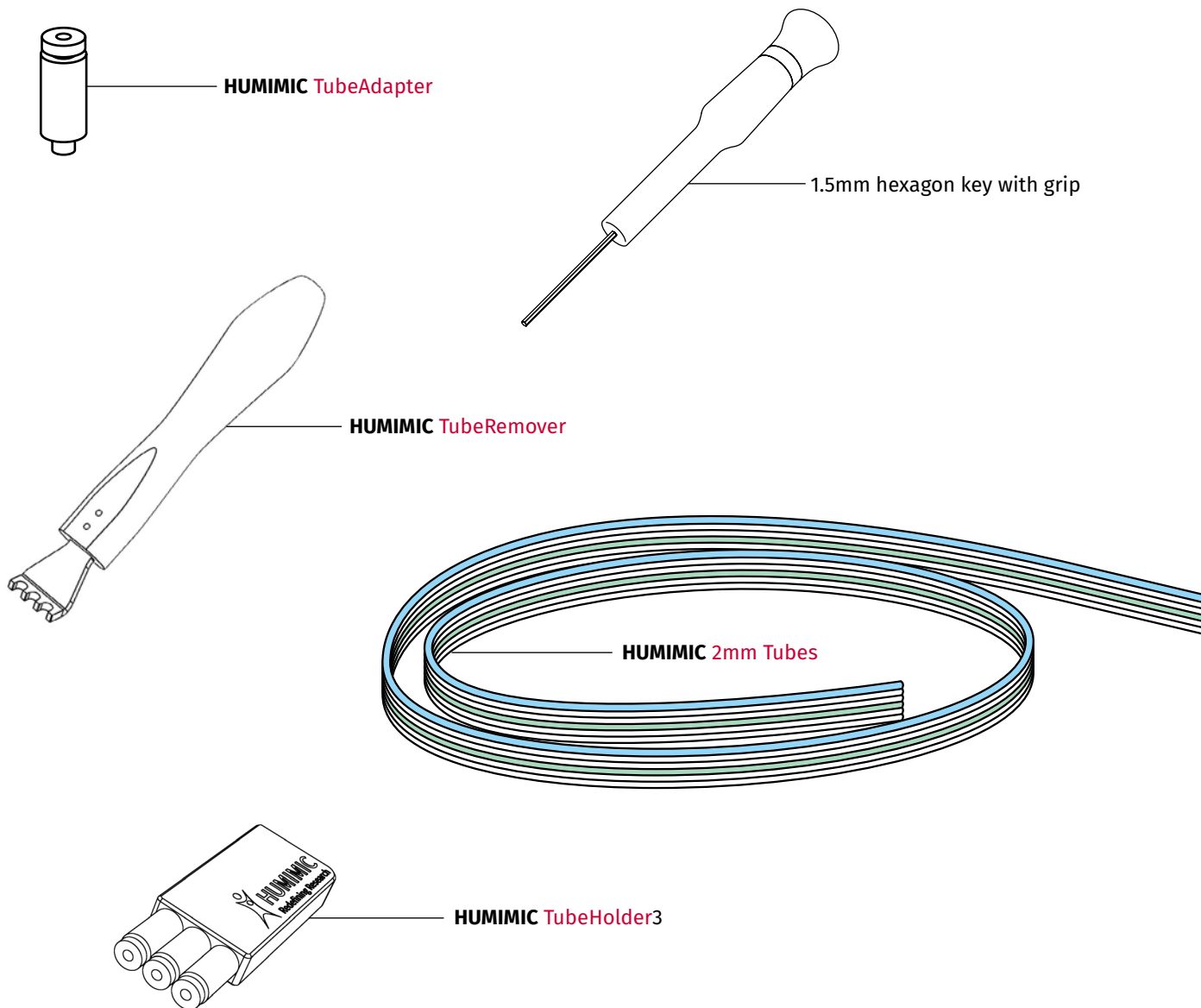
3.2 HUMIMIC Holder

The heat-resistant **HUMIMIC Holder** is ideal for placing the chips in the incubator while keeping them in place. Because of its transparent material it is also compatible with imaging applications.



PRODUCT CODE	NAME	DESCRIPTION
A01	HUMIMIC HeatSupport	Heat support for cultivation of our HUMIMIC Chips at regulated temperature outside an incubator.
A02	HUMIMIC Holder	Holder plate for 8 HUMIMIC Chips . Can be used for easy storage/cultivation of chips in the incubator.

3.3 Tubes and tube equipment



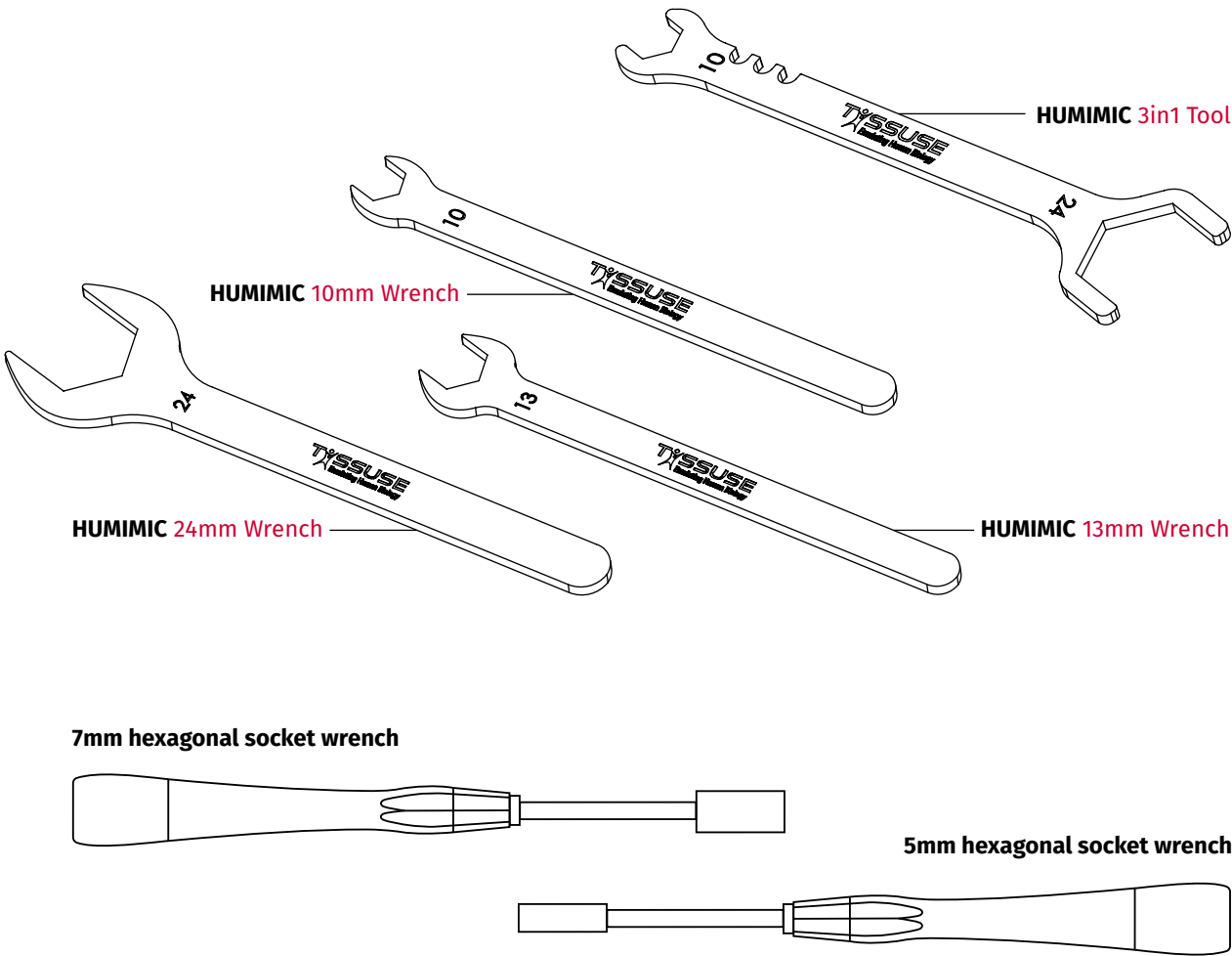
PRODUCT CODE	NAME	DESCRIPTION
A03	HUMIMIC TubeAdapter	One-touch fitting to connect the pneumatic tubes of the HUMIMIC Starter to the HUMIMIC Chips . Compatible with all chip types.
A04	1.5mm hexagon key with grip	Hexagon key with comfortable grip used to secure or remove the HUMIMIC TubeAdapters .
A05	HUMIMIC TubeRemover	Tool to easily remove connecting tubes from the chips.
A06	HUMIMIC 2mm Tubes	Six color coded tubes with a diameter of 2 mm and a length of 2 m to connect HUMIMIC Chips to HUMIMIC Starter .
A16	HUMIMIC TubeHolder3	Holder to blind the free tube pair when connecting an odd number of HUMIMIC Chip3 or circuits to prevent unwanted leakage.

3.4 Tools

With the **HUMIMIC 3in1 Tool** handling of the **HUMIMIC Chips** is made easier. You can easily remove connecting tubes from the chips or fix the cell culture inserts when opening the lid.

The **HUMIMIC Wrenches** help securing the cell culture compartments while opening the screw lids. They can also be used to remove and screw in the cell culture compartments.

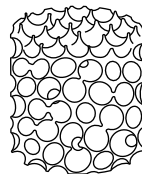
Hexagonal socket wrenches are used to open the screw lids of all our chips.



PRODUCT CODE	NAME	DESCRIPTION
A07	HUMIMIC 3in1 Tool	See p. 2-14 for compatibility with HUMIMIC Chip culture compartments.
A08	HUMIMIC 10mm Wrench	
A09	HUMIMIC 13mm Wrench	
A10	HUMIMIC 24mm Wrench	
A11	7mm hexagonal socket wrench	
A12	5mm hexagonal socket wrench	

3.5 Sponceram® cylinders

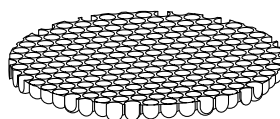
These hydroxyapatite-coated zirconium oxide-based Sponceram® 3D ceramic scaffolds provide the perfect structure for bone marrow culture. With a diameter and height of 6 mm each, they are compatible with the **HUMIMIC Threadfit** SH in our **HUMIMIC Chip2**, **Chip3** and **Chip4**.



PRODUCT CODE	NAME	DESCRIPTION
A13	HUMIMIC Sponceram® cylinder	Hydroxyapatite-coated zirconium oxide-based Sponceram® 3D ceramic scaffold.

3.6 Dynarray® microcavity membranes

The porous polycarbonate Dynarray® microcavity membranes developed and manufactured by 300MICRONS (www.300MICRONS.com) provide the perfect support for your 3D-spheroid models. By separating spheroids in individual microcavities, these membranes prevent fusion as well as maintain the 3D architecture of spheroids. In addition, μm -sized pores in the membrane ensure an optimal supply of spheroids with nutrients. You receive the membranes already inserted into the culture compartment – ready for you to transfer your spheroids. Our standard format* provides at least 200 microcavities per culture compartment each being 300 μm wide and 300 μm deep with 3 μm pores. Dynarray® microcavity membranes can be inserted in all 96-well culture compartments and they are compatible with all **Threadfit**96 cell culture insert holders.

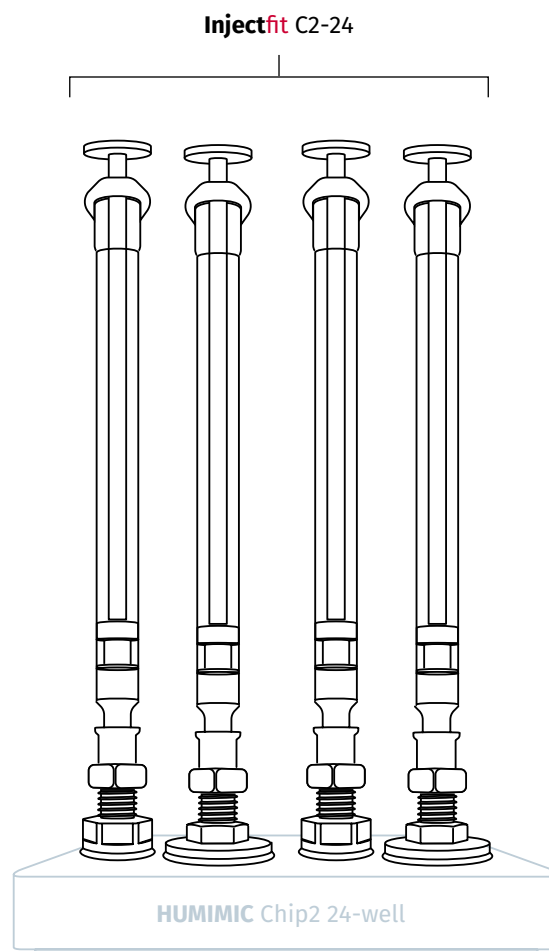
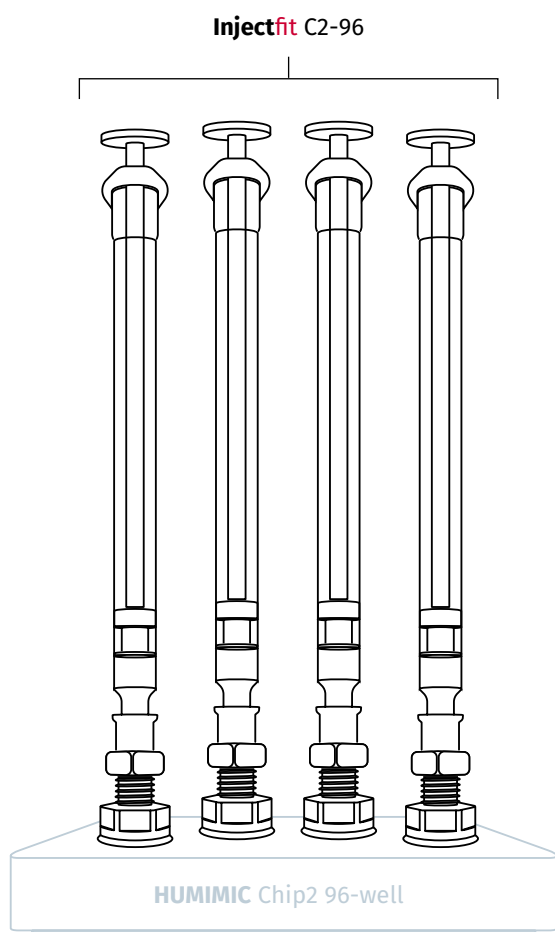


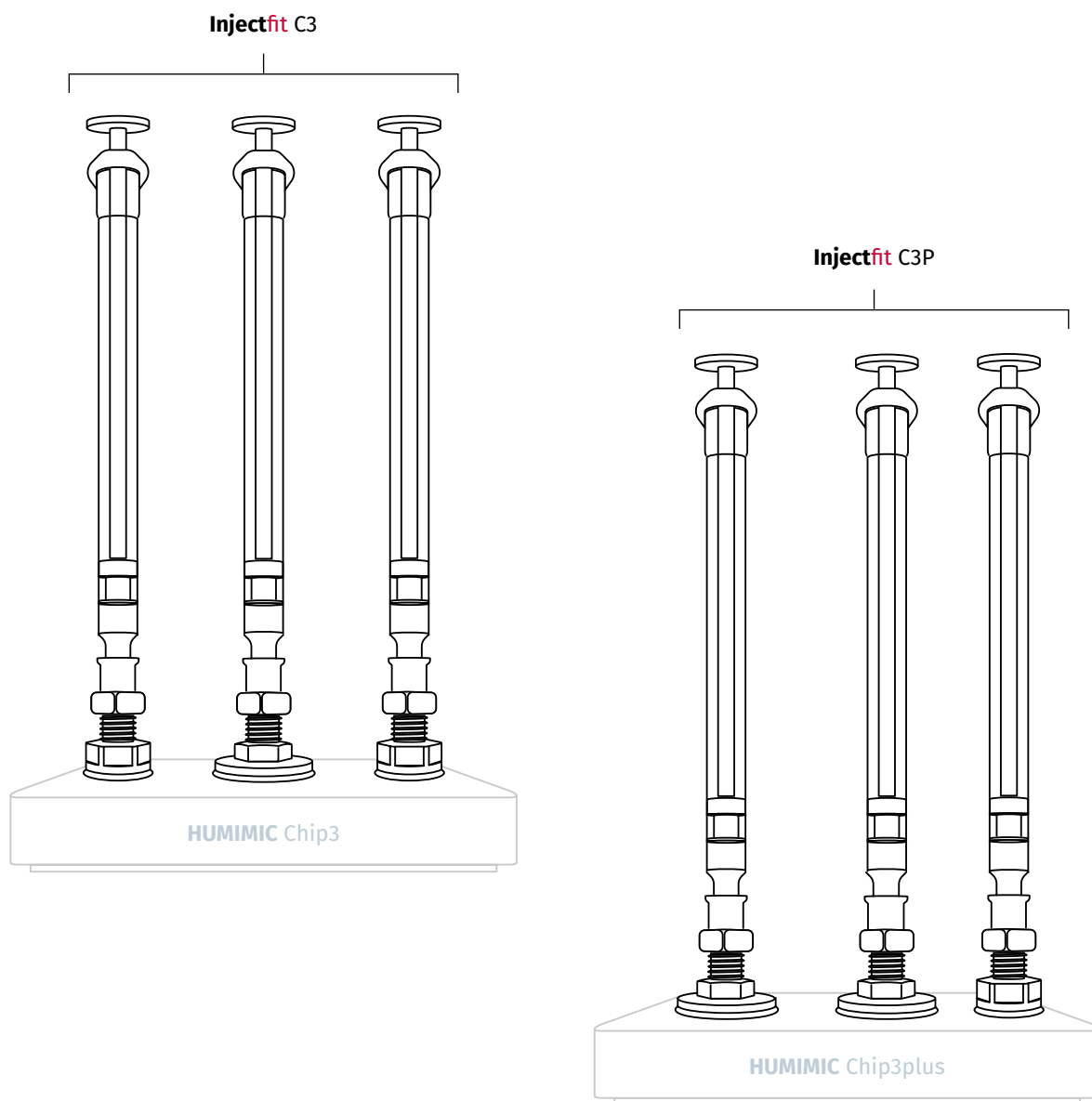
PRODUCT CODE	NAME	DESCRIPTION
A14	300MICRONS DYNARRAY MCA-C300-PC	Polycarbonate Dynarray® microcavity membrane with 300 μm diameter and 3 μm pore size.
A15	300MICRONS DYNARRAY MCA-C300-PCLA	Polycarbonate Dynarray® microcavity membrane with 300 μm diameter, 3 μm pore size and low attachment surface.

* other dimensions or shapes of microcavities, different pore sizes, arrays with different pitch/spacing as well as different materials available upon request

3.7 HUMIMIC InjectionKit

Wish to cover your microfluidic channels with cells? The **HUMIMIC InjectionKit** allows you to seed your cells into the HUMIMIC Chip's channels – either endothelial cells, proximal tubule cells or any other tube-forming cells. And the best of it: it can be easily combined with organ model cultures in the culture compartments. Once the channels are covered, you can return to the usual culture compartments and use the chip with your additional organ model cultures.





PRODUCT CODE	NAME	DESCRIPTION
I01	Injectfit C2-96	Four injection fittings for 96-well inserts, four 1 ml syringes with dead volume and four 1 ml syringes without dead volume – to flush, coat or seed your HUMIMIC Chip2 96-well.
I02	Injectfit C2-24	Two injection fittings for 96-well inserts, two injection fittings for 24-well, four 1 ml syringes with dead volume and four 1 ml syringes without dead volume – to flush, coat or seed your HUMIMIC Chip2 24-well.
I03	Injectfit C3	Two injection fittings for 96-well inserts, one injection fitting for 24-well, three 1 ml syringes with dead volume and three 1 ml syringes without dead volume – to flush, coat or seed your HUMIMIC Chip3 .
I04	Injectfit C3P	One injection fitting for 96-well inserts, two injection fittings for 24-well, three 1 ml syringes with dead volume and three 1 ml syringes without dead volume – to flush, coat or seed your HUMIMIC Chip3plus .

3.8 HUMIMIC iPSCs

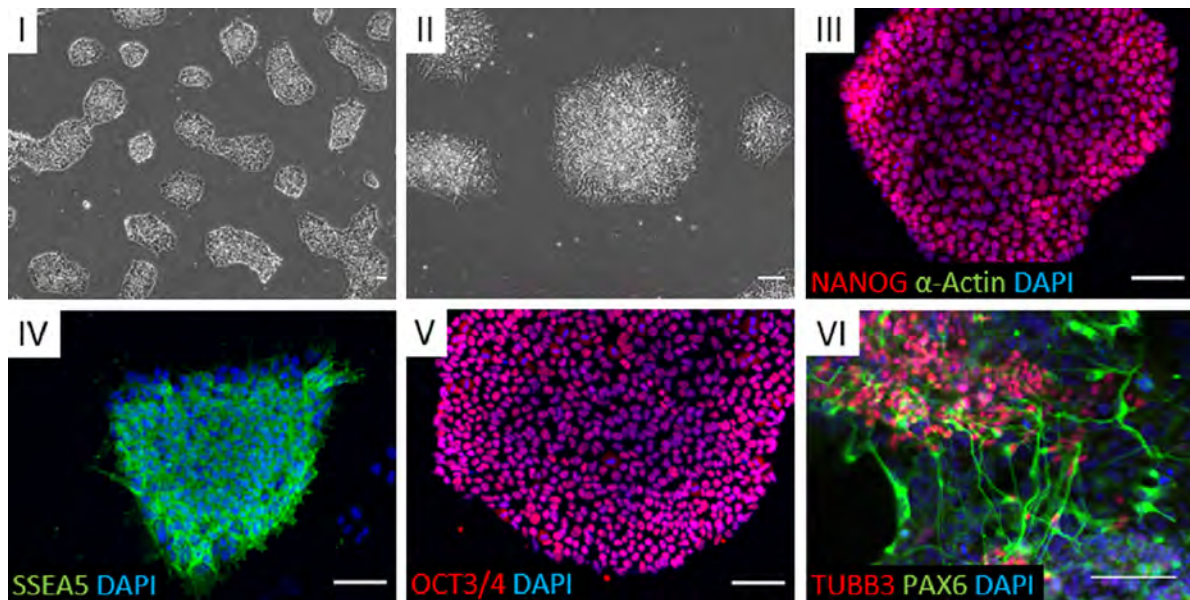
The field of regenerative medicine and tissue engineering faces the challenge of the limited source of cells for studying the embryogenic development of organs as well as building up complex organ systems and disease models for drug testing. Due to practical and ethical concerns human primary cells of different organs from one donor are difficult to obtain in adequate amounts. The TissUse human induced pluripotent stem cell lines solve these problems. By reprogramming human peripheral blood mononuclear cells with episomal plasmids – a „footprint-free“-method – we have established a human iPSC bank of several donors. The iPSCs were reprogrammed with a set of five episomal vectors containing OCT4, SOX2, LIN28, KLF4, and L-MYC.

These reprogrammed pluripotent stem cells enable the development of an unlimited source of any type of human cells needed for research purposes in academia and industry.

A pool of different human donors is available.

Details can be found at <https://doi.org/10.1016/j.scr.2019.101615>.

TISSUi001-A SU101



Scale 100µm

All **HUMIMIC iPSCs** were validated for their gene expression of pluripotent markers like OCT3/4, SOX2, NANOG and TRA-1-60. The iPSCs grow in flat colonies with high cell-cell contact morphology and minimum spontaneous differentiation. They have a round shape, a large nucleus and scant cytoplasm. Differentiation potential into mesoderm, ectoderm and endoderm was shown by differentiation into cardiomyocytes, neurons and definitive endoderm, respectively. **HUMIMIC iPSC** lines passed the PluiTest and have a normal karyotype. Additionally the identity of the iPSCs and the donors was proved by STR analysis. All iPSC banks were also examined negative for any mycoplasma, bacteria or fungi contamination. All lines are registered and validated in the hPSCreg: <https://hpscereg.eu/browse/provider/908>

A complete analysis can be found as part of the certificate of analysis which is available for every single iPSC line batch.

TissUse provides an application protocol with every purchased vial of iPSCs. This enables even iPSC beginners to work with **HUMIMIC iPSCs**.

For further information concerning **HUMIMIC iPSCs** please contact us at cells@tissuse.com

PRODUCT CODE	NAME	DESCRIPTION
H101	HUMIMIC 101	Induced pluripotent stem cells (iPSCs). Donor 101. Enable the generation of an unlimited source of human stem cells.
H102	HUMIMIC 102	Induced pluripotent stem cells (iPSCs). Donor 102. Enable the generation of an unlimited source of human stem cells.
H103	HUMIMIC 103	Induced pluripotent stem cells (iPSCs). Donor 103. Enable the generation of an unlimited source of human stem cells.
H105	HUMIMIC 105	Induced pluripotent stem cells (iPSCs). Donor 105. Enable the generation of an unlimited source of human stem cells.
H106	HUMIMIC 106	Induced pluripotent stem cells (iPSCs). Donor 106. Enable the generation of an unlimited source of human stem cells.
H107	HUMIMIC 107	Induced pluripotent stem cells (iPSCs). Donor 107. Enable the generation of an unlimited source of human stem cells.



Technical Specifications

4 Technical Specifications

4.1 HUMIMIC Starter

! **HUMIMIC Starter** is designed exclusively for use in a laboratory.

MANUFACTURER	TissUse GmbH	Oudenarder Str. 16 13347 Berlin, Germany	
GENERAL	Model	HUMIMIC Starter	
	Dimensions	251.2 mm x 206 mm x 150.2 mm	
	Weight	4.8 kg	
OPERATING REQUIREMENTS	Input voltage	90–264 VAC, 50–60 Hz	
	Input pressure	+600kPa +/- 100 kPa at 25l/min	
	External vacuum	-100 kpa (optional)	
ENVIRONMENTAL CONDITIONS	Operating temperature	0 °C to +50 °C	
	Compressed air	dry and oil-free in accordance with ISO 8573-1:2010 [7:4:4]	
	Operating medium	inert gases	
	Relative air humidity	No condensation	
	Storage temperature	-10°C to +60°C	
	Supply connection	suitable for 6 mm / 8 mm Ø tube by external standards	
TECHNICAL PARAMETERS	Number of HUMIMIC Chips	Connect up to 4 HUMIMIC Chip2, 8 HUMIMIC Chip3 or 4 HUMIMIC Chip4	
	Sound power level	<45 dB(A)	
	Pump frequency	0 to 120 BPM	
ENCLOSED TOOLS & ACCESSORIES	Amount	Product Code	Name
	1	A08	HUMIMIC 10mm Wrench
	1	A10	HUMIMIC 24mm Wrench
	2	A11	7mm hexagonal socket wrench
	1	A04	1.5mm hexagon key with grip
	1	-	Power adapter
	30	A03	HUMIMIC TubeAdapter
	1	-	Stopcock
	1	A06	HUMIMIC 2mm Tubes
	2	-	Push-in-connectors
	1	-	Cold plug C13
	1	-	Air filter
	1	A02	HUMIMIC Holder
	1	A16	HUMIMIC TubeHolder3

4.2 **HUMIMIC HeatSupport**

MANUFACTURER	TissUse GmbH	Oudenarder Str. 16 13347 Berlin, Germany
GENERAL	Model	HUMIMIC HeatSupport
	Dimensions	253 mm x 113 mm x 19 mm
	Weight	642 g
OPERATING REQUIREMENTS Use included power supply:	Input voltage	24 V = 0.75 A
	Input voltage (power supply)	100–240 VAC, 50–60 Hz, 0.6 A
	Output voltage (power supply)	24 V = 0.75 A
ENVIRONMENTAL CONDITIONS	Ambient temperature	Room temperature
	Relative air humidity	No condensation
	Storage temperature	–10°C to +60°C
TECHNICAL PARAMETERS	Number of HUMIMIC Chips	Space for up to 4 HUMIMIC Chips
	Default temperature	37°C
	Temperature range set by HUMIMIC Starter*	Room temperature to 42°C
	Cleaning	Wipe disinfectable

* feature will be activated with a later **HUMIMIC Starter** update





Interested in our products?



Our support is looking forward to answering your questions:

support@tissuse.com

+49 (0)30 - 51 30 26 400



To place an order, please contact:

customer@tissuse.com

TissUse GmbH, Oudenarder Str. 16, 13347 Berlin, Germany



www.tissuse.com