



BioChip-C2 (Order No. 08507)

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General

Please check delivery for transport damage when unpacking.


Description

Multiparametric BioChip for measurement (Impedance, pO₂ and pH) of cellular metabolism and morphology on glass substrate for optical access via microscope.

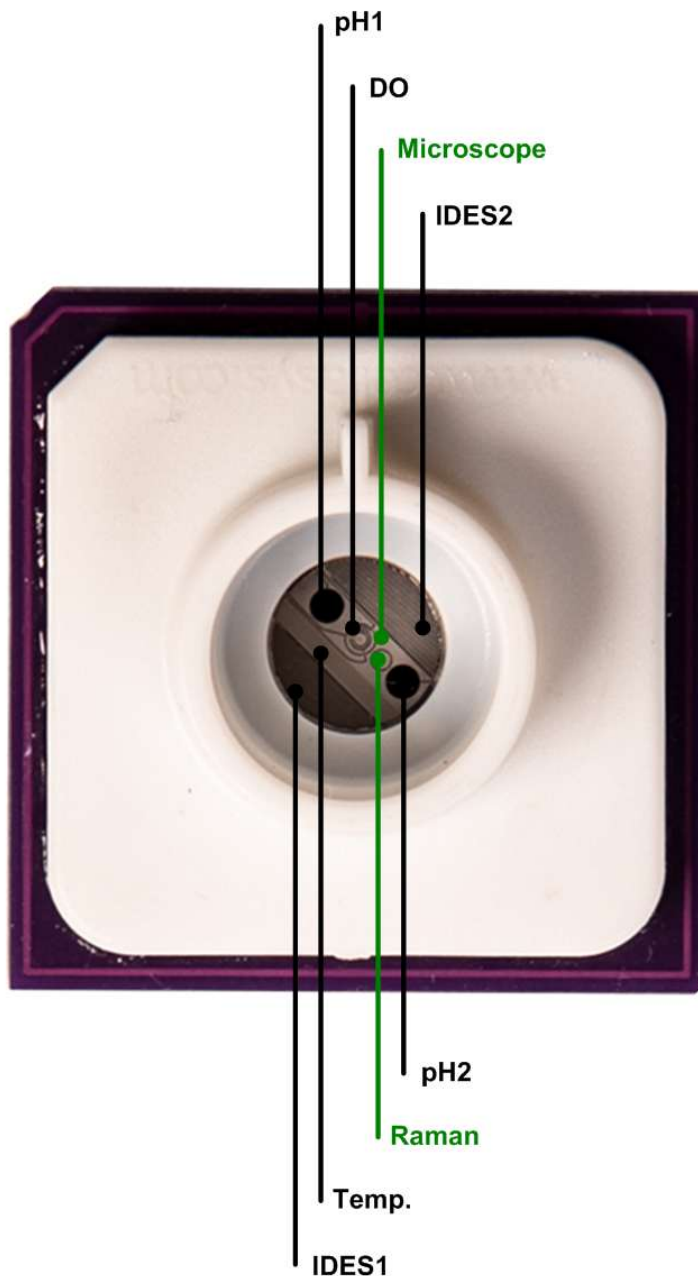
Caution

Handle with care.

- Glass tends to break due to mechanical stress.

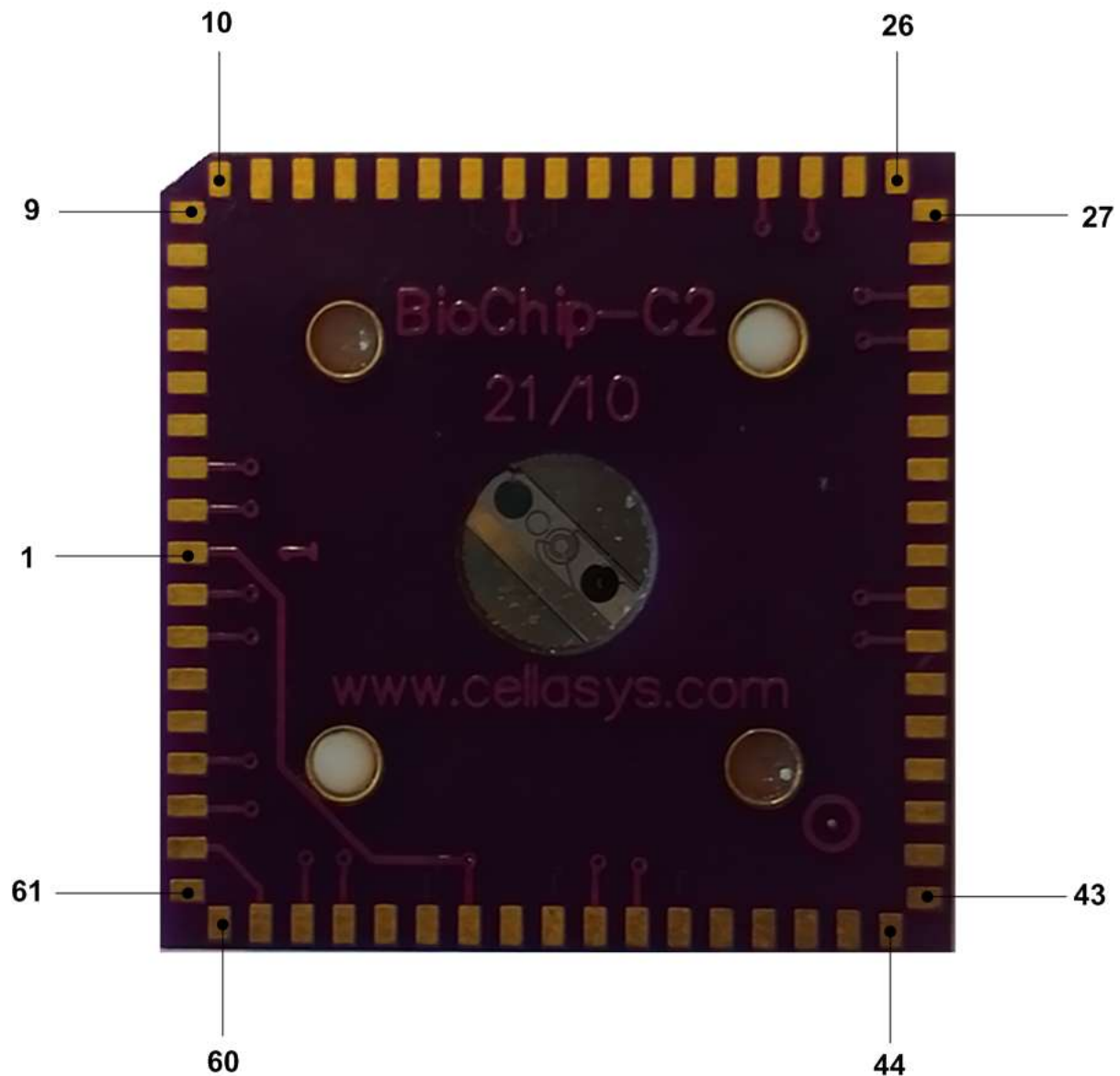
	<p>In general BioChip-C2 may only be used in combination with celtasys IMOLA by qualified personnel of a research or healthcare institution. Read the IMOLA manual thoroughly and carefully follow the instructions and guidelines provided.</p>
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View from top side



IDES: Interdigitated electrode structure
DO: Dissolved oxygen

View from bottom side



Pin configuration

Pin No.	Name	Description
1	-	Not connected
2	TEMPAU	Temperature sensor, voltage connector A
3	TEMPAI	Temperature sensor, current connector A
4	-	Not connected
5	-	Not connected
6	-	Not connected
7	-	Not connected
8	-	Not connected
9	-	Not connected
10	-	Not connected
11	-	Not connected
12	-	Not connected
13	-	Not connected
14	-	Not connected
15	-	Not connected
16	-	Not connected
17	PH2	pH sensor 2
18	-	Not connected
19	-	Not connected
20	-	Not connected
21	-	Not connected
22	-	Not connected
23	IDES2AU	Impedance sensor 1, voltage connector A
24	IDES2AI	Impedance sensor 1, current connector A
25	-	Not connected
26	-	Not connected
27	-	Not connected
28	-	Not connected
29	IDES2BI	Impedance sensor 1, current connector B
30	IDES2BU	Impedance sensor 1, voltage connector B
31	-	Not connected
32	-	Not connected
33	-	Not connected
34	-	Not connected
35	-	Not connected
36	O2REF	Dissolved oxygen sensor, reference electrode
37	PH1	pH sensor 1

Data sheet

38	-	Not connected
39	-	Not connected
40	-	Not connected

Pin No.	Name	Description
41	-	Not connected
42	-	Not connected
43	-	Not connected
44	-	Not connected
45	-	Not connected
46	-	Not connected
47	-	Not connected
48	-	Not connected
49	-	Not connected
50	O2WK	Dissolved oxygen sensor, work electrode
51	O2AUX	Dissolved oxygen sensor, auxiliary electrode
52	-	Not connected
53	-	Not connected
54	-	Not connected
55	-	Not connected
56	-	Not connected
57	IDES1AU	Impedance sensor 2, voltage connector A
58	IDES1AI	Impedance sensor 2, current connector A
59	SC	Shortened to 62
60	-	Not connected
61	-	Not connected
62	SC	Shortened to 59
63	IDES1BI	Impedance sensor 2, current connector B
64	IDES1BU	Impedance sensor 2, voltage connector B
65	-	Not connected
66	-	Not connected
67	TEMPBI	Temperature sensor, current connector B
68	TEMPBU	Temperature sensor, voltage connector B

Technical data

Dimensions:	24.0 x 24.0 x 10.0 mm ³
Weight:	4.5 g
Well diameter:	10 mm
Cell culture area:	Ø 6 mm
Operating temperature:	0 °C to +80°C

pH (PH)

Dimensions (MeOx-Spot):	~ 3 mm ²
Linear range:	pH 5.0 to pH 11.0
Sensitivity:	~ - 40 mV/pH
Response time (t ₉₀):	< 5 s

Dissolved oxygen (O2)

Dimensions:	~ 3 mm ²
Linear range:	0 to 120 %DO
Sensitivity:	1 nA/pDO +/- 10 %
Response time (t ₉₀):	< 0.1 s

Impedance (IDES)

Dimensions:	~ 10 mm ²
Linear range:	10 Ω to 5 kΩ
Geometry:	IDES1: 50 µm width, 25 µm distance IDES2: 50 µm width, 50 µm distance
Response time (t ₉₀):	< 1 s

Intended use

The BioChip-C2 is designed to be used in combination with IMOLA, for multiparametric measurement (impedance, pO₂ and pH) of cellular metabolism and morphology.

Intended misuse

The BioChip-C2 must not be used for diagnostic or therapeutic purposes.

Liability / Copyright

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