



BioChip-C2 (Order No. 08507)

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General

Please check for transport damage upon delivery when unpacking.

Description

Multiparametric BioChip for measuring cellular metabolism and morphology (impedance, pO₂, and pH) on a glass substrate for optical access via a microscope.

Caution

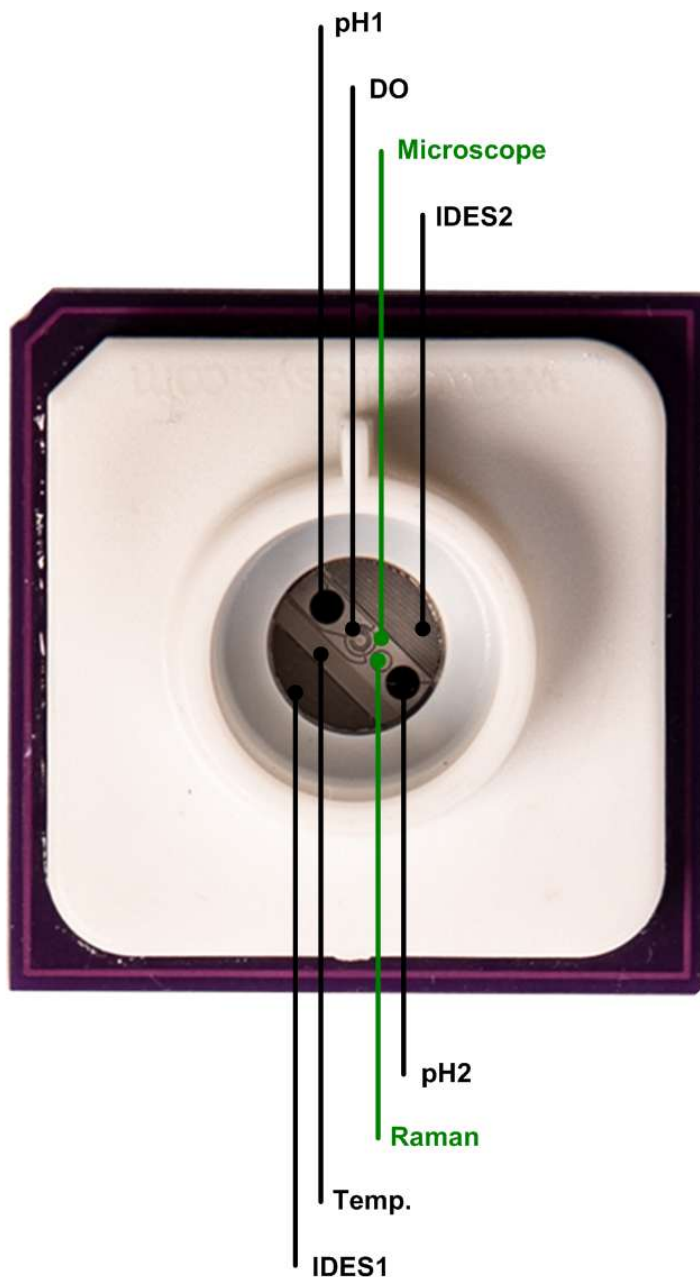
Handle with care.

- Glass tends to break due to mechanical stress.



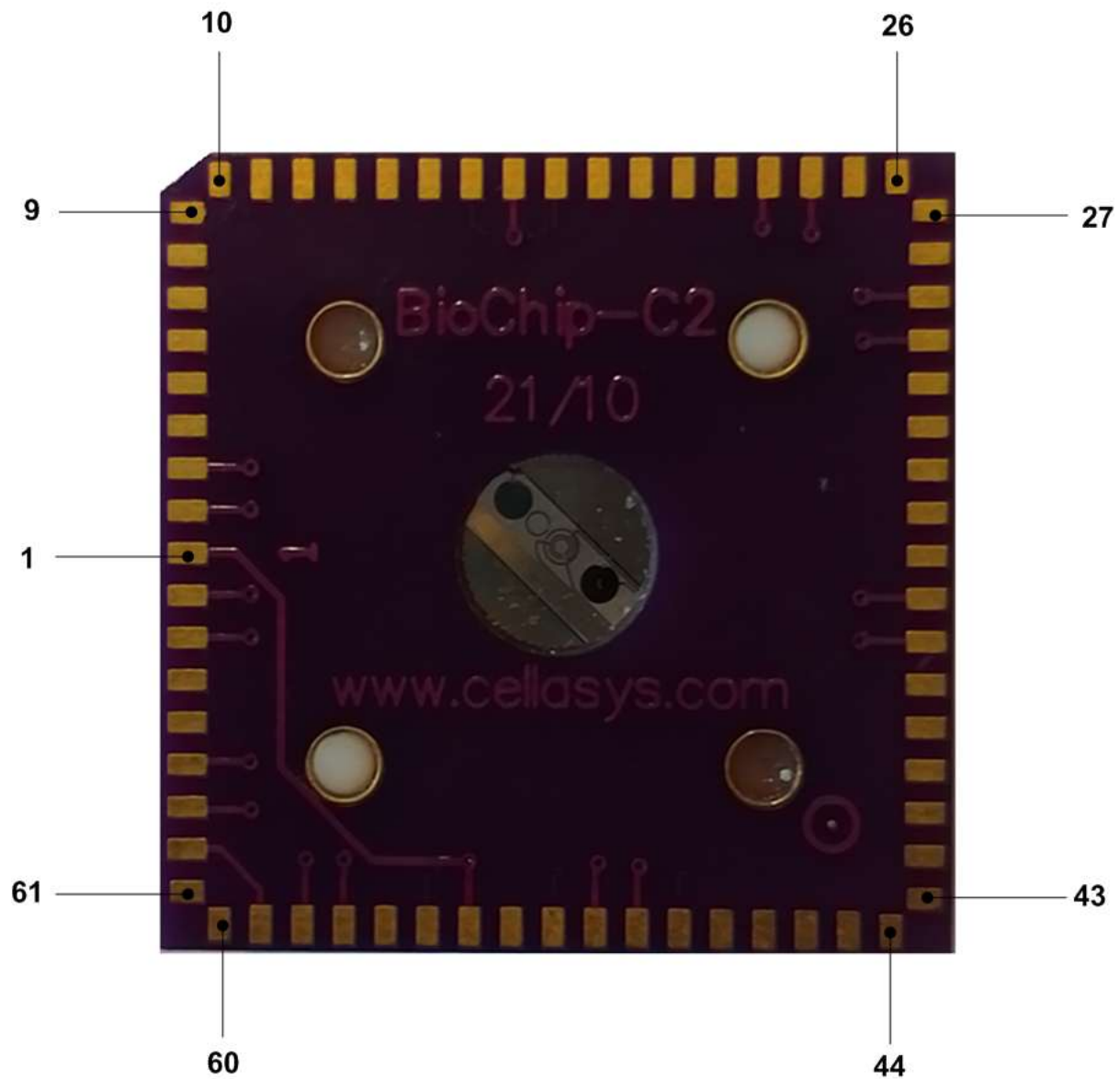
In general, BioChip-C2 may be used only in combination with cellasys IMOLA by qualified personnel at a research or healthcare institution. Read the IMOLA manual thoroughly and carefully follow the provided instructions and guidelines.

View from top side



IDES: Interdigitated electrode structure
 DO: Dissolved oxygen
 Temp: Temperature

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
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 of cellular metabolism and morphology (impedance, pO₂, and pH).

Intended misuse

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

Liability / Copyright

All technical details are based on the state of the technology as of September 2026 and are subject to change without notice. No liability is assumed for pictures, descriptions, or any content of this document.

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