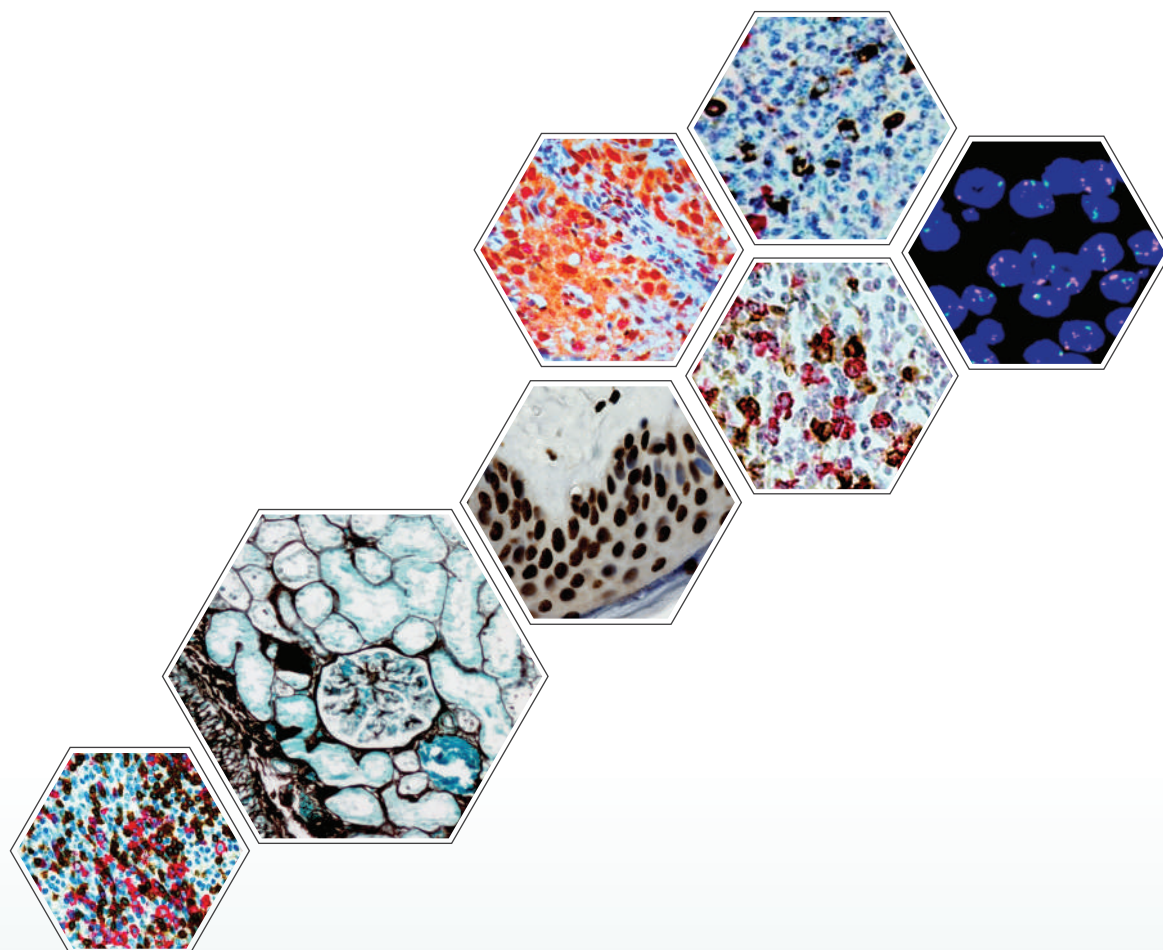


Xmatrix[®] Infinity

Infinite Possibilities...

...for Translational and Clinical Research



**Optimize up to 40 assay
parameters in a single run**
All-in-One
**IHC, IF, ISH, FISH, SS,
in situ PCR, miRNA ISH**



Key Features:

- Xmatrix® - a platform technology consisting of fully automated sample processing system, detection kits, antibodies and probes for molecular diagnostics, and translational & clinical research.
- Key technology differentiators are: forty independently controlled thermocyclable (PCR) work stations, a reaction micro-chamber at each position, reagent vials, and bulk-fluidics that enable complete automation of any slide based assays.
 - IHC, IF, ISH, FISH, SS
 - Co-detection and multiplexing of nucleic acid and protein biomarkers
 - *in situ* PCR, miRNA
- Xmatrix® Infinity is designed for the life science research, and drug discovery & development. The system adapts and completely automates any manual protocol including denaturation, hybridization, stringency washes, counter stain and final coverslip.
- Multiplexing of ISH and IHC in the same specimen, a hallmark of the system, facilitates co-detection of multiple biomarkers while preserving the tissue morphology and spatial information. The *in situ* quantitative gene-expression profiling enables target identification, prioritization, selection and validation.

Key Features & Benefits



Accelerate the pace of discovery...

- Simultaneous optimization of up to forty parameters in a single run
- Co-detection of multiple nucleic acid and protein biomarkers
- Multiplexing of single or multiple specimens on a single slide
- Multi-format specimen analysis : Tissues - Frozen or FFPE, Cell preparations, Smears, Fine Needle Aspirates (FNA) and many more...

Protocol Editor

Protocol Information
 Direction: Anti-Microspec
 Path:
 Number:
 Kit:
 Group:
 Reagent Name:
 Apply:
 Host:
 Incubate:
 Wash:
 Count:
 Critical Step:
 Yes/No

Index	Description	Vol (µl)	Conc (mg/ml)	Reagent Name	Apply (µl)	Host (µl)	Incubate (min)	Wash Type	Count	Critical Step
1	Apply Reagent	200	1000000	Phosphate Buffer	Yes	0	00:00:00	00:00:00	0	No
2	Incubate Slide						00:00:00	00:00:00	0	No
3	Wash Slide						00:00:00	00:00:00	0	No
4	Apply Micro Reagent	75	1000000	Anti-Microspec	Yes	0	00:00:00	00:00:00	0	No
5	Apply Micro Reagent						00:00:00	00:00:00	0	No
6	Incubate Slide						00:00:00	00:00:00	0	No
7	Wash Slide						00:00:00	00:00:00	0	No
8	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
9	Apply Micro Reagent						00:00:00	00:00:00	0	No
10	Incubate Slide						00:00:00	00:00:00	0	No
11	Wash Slide						00:00:00	00:00:00	0	No
12	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
13	Apply Micro Reagent						00:00:00	00:00:00	0	No
14	Incubate Slide						00:00:00	00:00:00	0	No
15	Wash Slide						00:00:00	00:00:00	0	No
16	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
17	Apply Micro Reagent						00:00:00	00:00:00	0	No
18	Incubate Slide						00:00:00	00:00:00	0	No
19	Wash Slide						00:00:00	00:00:00	0	No
20	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
21	Apply Micro Reagent						00:00:00	00:00:00	0	No
22	Incubate Slide						00:00:00	00:00:00	0	No
23	Wash Slide						00:00:00	00:00:00	0	No
24	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
25	Apply Micro Reagent						00:00:00	00:00:00	0	No
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27	Wash Slide						00:00:00	00:00:00	0	No
28	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
29	Apply Micro Reagent						00:00:00	00:00:00	0	No
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31	Wash Slide						00:00:00	00:00:00	0	No
32	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
33	Apply Micro Reagent						00:00:00	00:00:00	0	No
34	Incubate Slide						00:00:00	00:00:00	0	No
35	Wash Slide						00:00:00	00:00:00	0	No
36	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
37	Apply Micro Reagent						00:00:00	00:00:00	0	No
38	Incubate Slide						00:00:00	00:00:00	0	No
39	Wash Slide						00:00:00	00:00:00	0	No
40	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
41	Apply Micro Reagent						00:00:00	00:00:00	0	No
42	Incubate Slide						00:00:00	00:00:00	0	No
43	Wash Slide						00:00:00	00:00:00	0	No
44	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
45	Apply Micro Reagent						00:00:00	00:00:00	0	No
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47	Wash Slide						00:00:00	00:00:00	0	No
48	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
49	Apply Micro Reagent						00:00:00	00:00:00	0	No
50	Incubate Slide						00:00:00	00:00:00	0	No

...With flexibility and control

- Intuitive software designed for ease of use and flexibility
- Automate any or all steps from baking through final coverslip
- Fully open system, use reagent of your choice
- Adapts and automates any manual slide based assays

Kmatrix

Master: Working System - (04-08-2010-001)

Operations: [Start] [Stop] [Continue] [Pause] [Help]

Administrator

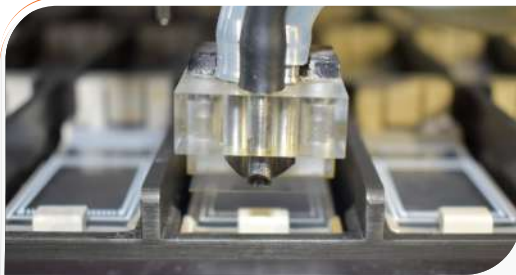
Start Time: 11:08:50

Work End Time: 10:46:36

Index	Description	Vol (µl)	Conc (mg/ml)	Reagent Name	Apply (µl)	Host (µl)	Incubate (min)	Wash Type	Count	Critical Step
1	Apply Reagent	200	1000000	Phosphate Buffer	Yes	0	00:00:00	00:00:00	0	No
2	Incubate Slide						00:00:00	00:00:00	0	No
3	Wash Slide						00:00:00	00:00:00	0	No
4	Apply Micro Reagent	75	1000000	Anti-Microspec	Yes	0	00:00:00	00:00:00	0	No
5	Apply Micro Reagent						00:00:00	00:00:00	0	No
6	Incubate Slide						00:00:00	00:00:00	0	No
7	Wash Slide						00:00:00	00:00:00	0	No
8	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
9	Apply Micro Reagent						00:00:00	00:00:00	0	No
10	Incubate Slide						00:00:00	00:00:00	0	No
11	Wash Slide						00:00:00	00:00:00	0	No
12	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
13	Apply Micro Reagent						00:00:00	00:00:00	0	No
14	Incubate Slide						00:00:00	00:00:00	0	No
15	Wash Slide						00:00:00	00:00:00	0	No
16	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
17	Apply Micro Reagent						00:00:00	00:00:00	0	No
18	Incubate Slide						00:00:00	00:00:00	0	No
19	Wash Slide						00:00:00	00:00:00	0	No
20	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
21	Apply Micro Reagent						00:00:00	00:00:00	0	No
22	Incubate Slide						00:00:00	00:00:00	0	No
23	Wash Slide						00:00:00	00:00:00	0	No
24	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
25	Apply Micro Reagent						00:00:00	00:00:00	0	No
26	Incubate Slide						00:00:00	00:00:00	0	No
27	Wash Slide						00:00:00	00:00:00	0	No
28	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
29	Apply Micro Reagent						00:00:00	00:00:00	0	No
30	Incubate Slide						00:00:00	00:00:00	0	No
31	Wash Slide						00:00:00	00:00:00	0	No
32	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
33	Apply Micro Reagent						00:00:00	00:00:00	0	No
34	Incubate Slide						00:00:00	00:00:00	0	No
35	Wash Slide						00:00:00	00:00:00	0	No
36	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
37	Apply Micro Reagent						00:00:00	00:00:00	0	No
38	Incubate Slide						00:00:00	00:00:00	0	No
39	Wash Slide						00:00:00	00:00:00	0	No
40	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
41	Apply Micro Reagent						00:00:00	00:00:00	0	No
42	Incubate Slide						00:00:00	00:00:00	0	No
43	Wash Slide						00:00:00	00:00:00	0	No
44	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
45	Apply Micro Reagent						00:00:00	00:00:00	0	No
46	Incubate Slide						00:00:00	00:00:00	0	No
47	Wash Slide						00:00:00	00:00:00	0	No
48	Apply Micro Reagent	75	1000000	Super Enhancer	Yes	0	00:00:00	00:00:00	0	No
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50	Incubate Slide						00:00:00	00:00:00	0	No

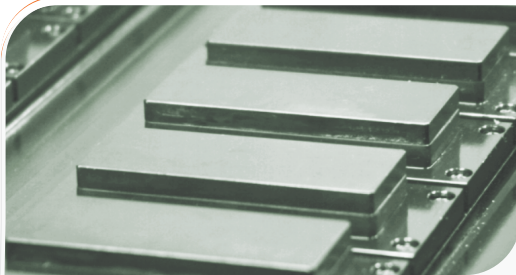
Ease of Use

- Real-time slide map
- Intelligent bulk fluidics system
- Efficient waste management system
- Reports for inventory management and regulatory compliance



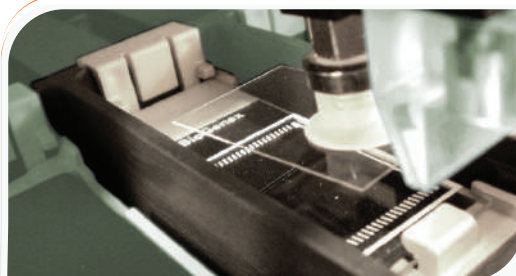
Reaction microchamber with microfluidics

- Reduces micro-reagent usage up to 90%
- Even distribution of reagents on the specimen
- Overnight incubation/hybridization without drying of specimen



eXACT™ Temperature Control and Thermo-cycling

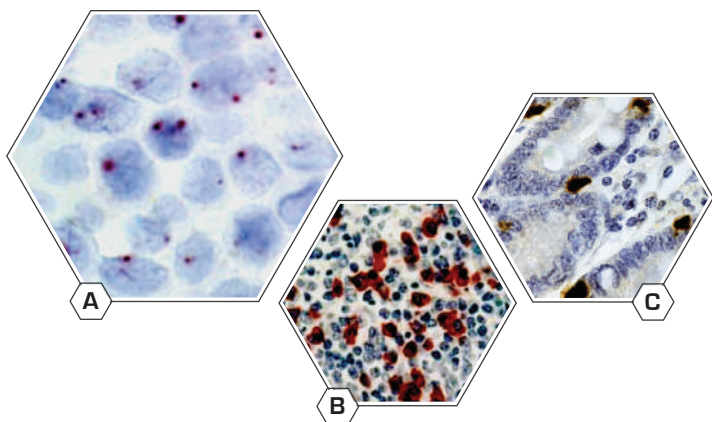
- Forty independently thermocyclable work stations
- Active heating and cooling on each slide - Ambient \rightleftharpoons 95 °C in < 2 min
- Temperature uniformity across entire slide \pm 0.5 °C
- Optimum operating temperature irrespective of the lab conditions
- Temperature range: ambient to 105 °C



On-board De-hydration and Final Coverslip

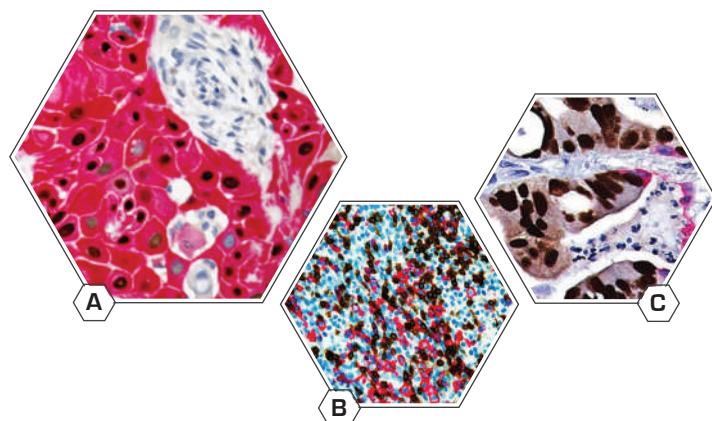
- Eco-friendly (non-xylene) dehydration & clearing
- Permanent mounting and coverslipping
- Curing and cooling

Infinite Possibilities...for Translational and Clinical Research



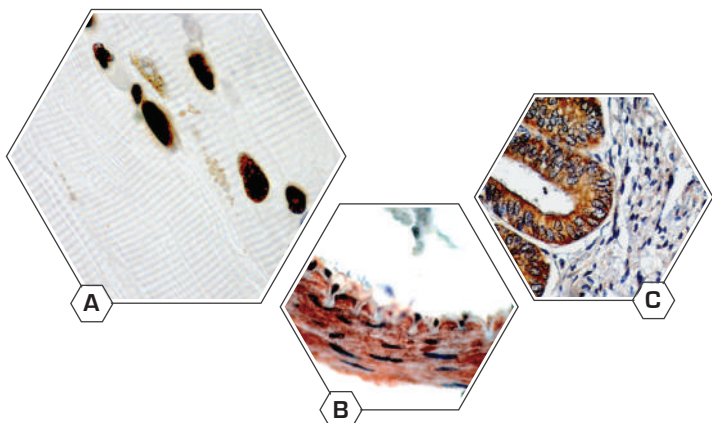
ISH

- A. HPV Probe
- B. Kappa
- C. Cyclin D1



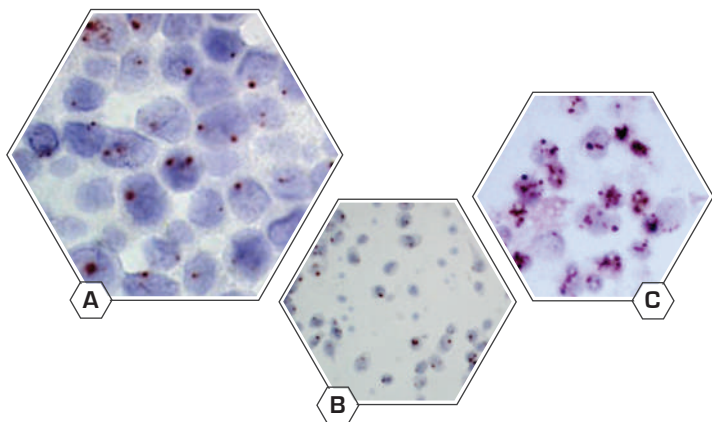
Multiplex Stains

- A. SCC - Anti-p63 + Anti-CK5
- B. Tonsil - Anti-CD3 + Anti-CD20
- C. Metastatic Carcinoma in Lung
Anti-CDX2 + Anti-CK7



Hsa - microRNA

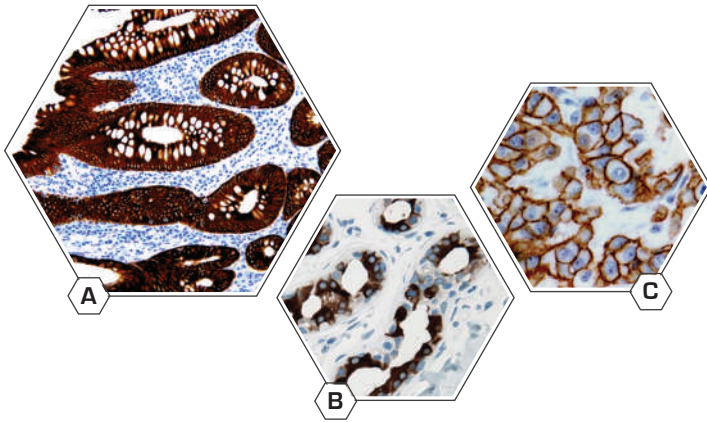
- A. miR-1 Human Skeletal Muscle
- B. miR -145 in Human Small Intestine
- C. miR-222 in Human Cervical Ca.



Single Copy Gene Detection

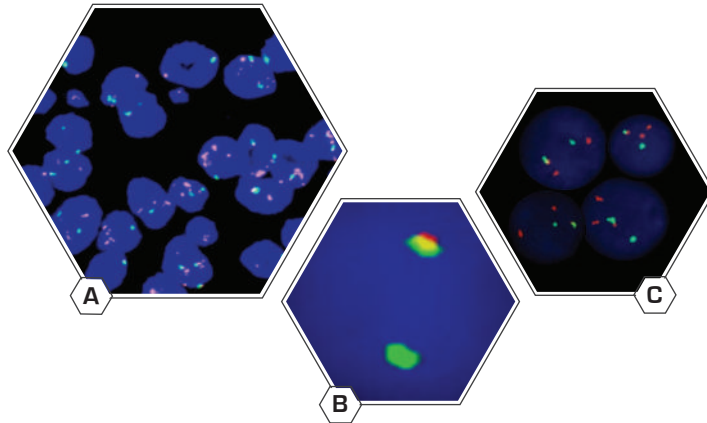
- A. SiHa
- B. HeLa
- C. Caski

Infinite Possibilities...for Translational and Clinical Research



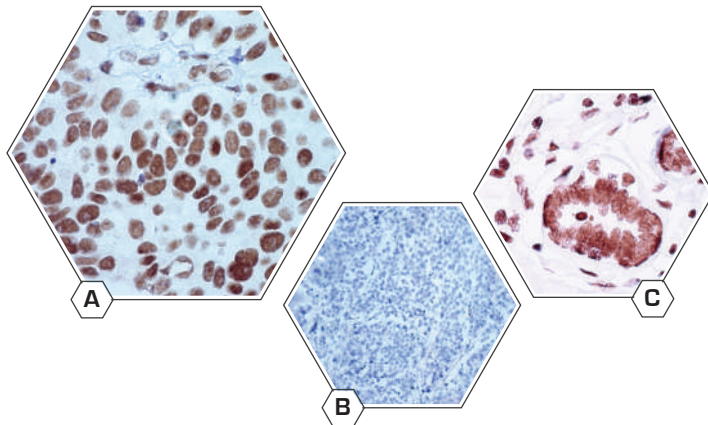
IHC

- A. Anti-CK18
- B. Anti-GCDFP-15
- C. Anti-ErbB-2/Her2



FISH

- A. FISH EGFR
- B. FISH Break apart ALK
- C. FISH HER2



in situ PCR

- A. HPV 16 in situ PCR Ca. Cervix
- B. HPV 16 Negative Control
- C. GAPDH in situ PCR Normal Breast

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...for Translational and Clinical Research*



Contact Information:

USA: 48810 Kato Road, Suite 200E, Fremont, CA 94538, USA

India: APIIC SEZ, Adibatla, R.R.Dist. 501510, Telangana, India

China: Unit 511B, 5F Front Hall, Shanghai Exhibition Center, Shanghai 200041, PRC, China

Customer service - US: customerservice@biogenex.com

Customer service - India: indiacs@biogenex.com

Customer service - Global: internationalcs@biogenex.com

Instrument support: instrument.care@biogenex.com

Reagent support: reagentsupport@biogenex.com

For US

T: +1-800-421-4149

F: +1-510-824-1490

For India

T: +91-9100032862

T: +91-6309448856

For China

T: +86-21-2220-6680

F: +86-21-2220-6679

For outside US, India, and China

T: +91-7702301043



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