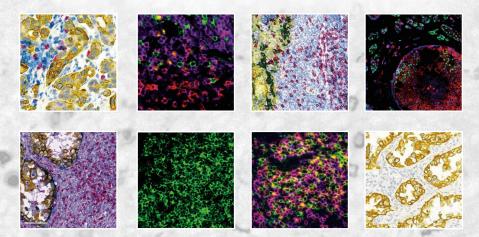
Technologies & Products



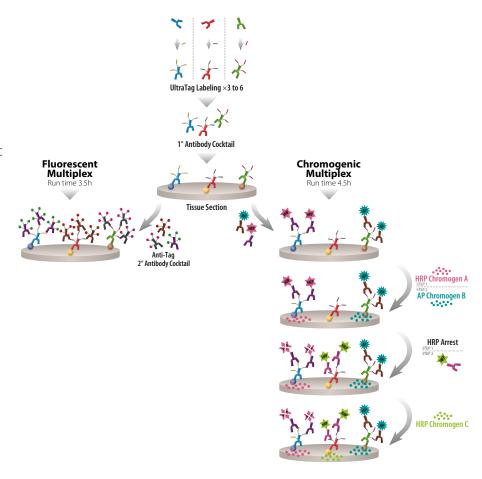


Technology

Cell IDx is a technology leader in multiplexed tissue profiling, developing highly sensitive and specific chromogenic and fluorescent multiplexed immunohistochemistry reagents to meet the needs of precision medicine.

Using our UltraPlex platform, multiple primary antibodies are labeled, each with multiple copies of a proprietary Tag. This is then detected using anti-Tag specific detection antibodies labeled with either fluors or enzymes to enable brilliant fluorescent or chromogenic readout of multiple biomarkers simultaneously. A single antigen retrieval step and staining using cocktails of antibodies enables rapid, simple biomarker profiling of tissue sections.

UltraPlex multiplex IHC staining kits for human and mouse biomarkers are available in premade panels or in modular format which allows users to select their own biomarker combinations. In addition, UltraTag labeling kits allow researchers to label their own antibodies and develop fluorescent and chromogenic multiplex staining panels of their choice.



Cell IDx's UltraPolymer anti-species-HRP secondary antibodies are highly sensitive, low background detection reagents that are optimized for IHC and use on either the autostainer or with manual staining. Cell Palette chromogens allow bright and clear chromogenic detection.

Cell IDx's new RightON Antibody Labeling Kits for Fluors and Biotin provide optimal labeling of antibodies with an easy, rapid, mix-and-use format. An optional final quick purification step is included. ReadySetGo Antibody Labeling Kits are your rapid, one-stop-shop solution to a complete antibody labeling and fluorescent or chromogenic detection system

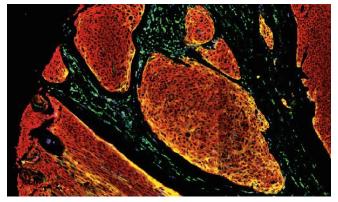
UltraPlex Human Fluorescent Multiplex IHC

Cell IDx's state-of-the-art UltraPlex fluorescent multiplex IHC technology allows identification, quantitation, and spatial localization of immune sub-populations *in situ* in FFPE tissue sections — all in a few hours on a single section. You can go from staining, to imaging, to analysis, all in a single day!

- Simple, rapid staining using standard IHC protocols
- FFPE tissue optimized
- Two easy staining steps using cocktail of antibodies
- Single antigen retrieval step
- Recommended protocols for manual staining or autostainer
- Pre-made panels against key biomarkers or select your own panel using UltraPlex Modular

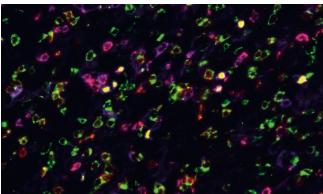
- UltraPlex Tagging technology allows use of primary antibodies of the same species
- Human Immune and breast cancer panels available
- Choose A (CL490, 550, 650, and 750nm) or
 B (CL490, 550, 595, and 650nm) panels depending on your imaging scanner or microscope
- 5 slide kits contain an additional secondary alone negative control
- Inquire about <u>Custom Staining Panels</u> against your novel biomarkers

Bladder Cancer



HI-2A staining: CD68, CD163, Pan-CK, PD-L1

Rectal Adenocarcinoma



HI-3A staining: CD4, CD8, FoxP3, PD-1

Pre-Made Panels

- Human Immune & Breast Cancer Panels
- Pre-made panels against key biomarkers
- Stain 5–7 slides depending on whether manual staining or autostainer
- Includes additional negative control
- <u>UltraPlex Human Fluorescent Multiplex IHC</u> premade panels

UltraPlex Modular — Select Your Own Panel

- Custom panels on demand!
- Select your own markers
- Choose from a wide range including CD4, CD8, CD68, CD163, FoxP3, PD- 1, PD-L1, T-bet, Ki-67, and HER2
- Select your fluors
- Select the number of slides you want to stain
- UltraPlex Human Modular Multiplex

UltraPlex Human Chromogenic Multiplex IHC

Answering a major unmet need in multiplex chromogenic staining Cell IDx has engineered its UltraPlex platform technology to stain 3–4 biomarkers chromogenically using a single antigen retrieval step and primary antibodies from any species both manually and on autostainers. It is now possible to stain, image, and analyze, all in a one day!

- Plug and play, pre-optimized panels for key biomarkers
- FFPE tissue optimized
- Easy, rapid, simultaneous staining using cocktails of antibodies
- Single antigen retrieval step
- Fast, whole-slide brightfield imaging

- Chromogenic detection of bio-marker co-expression using optimized chromogen selection
- Avoids autofluorescence problems
- 10 slide kits include an additional negative control
- Inquire about <u>Custom Staining Panels</u> against your novel biomarkers

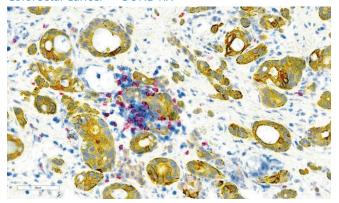
BOND RX/RX^m Optimized Panels

- Kit contains antibody cocktails, blocking buffer, diluent, and Cell IDx Yellow chromogens
- Additional reagents from Leica Biosystems that are required for use on the BOND RX/RX^m staining system but not included are: red and blue chromogens, antigen retrieval solutions, miscellaneous buffers, *etc*.
- Requires BOND RX/RX^m 7.0 software with BXD v 25 or above
- UltraPlex Human Chromogenic Multiplex IHC for BOND RX/RX^m

Manual Staining Panels

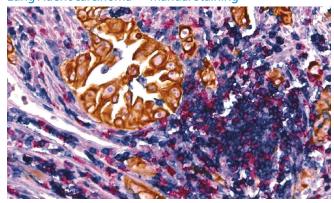
- Kit contains antibody cocktails, blocking buffer, diluent, and Cell IDx Red, Blue, and Yellow chromogens
- Needs minimal equipment, easily accessible to everyone
- <u>UltraPlex Human Chromogenic Multiplex IHC for Manual Staining</u>

Colorectal Cancer — BOND RX



CD4, CD8, PanCK

Lung Adenocarcinoma — Manual Staining



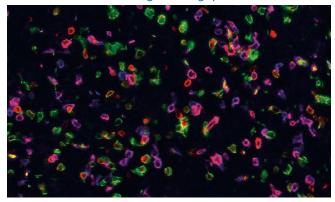
CD4, CD8, PanCK

UltraPlex Mouse Fluorescent Multiplex IHC

Out-of-the-box access to mouse multiplex biomarker tissue profiling using UltraPlex fluorescent multiplex IHC. A simple two step staining procedure using cocktails of antibodies and a single antigen retrieval step makes staining of your mouse preclinical samples quick and easy, whether you use manual staining or the autostainer for high-throughput staining!

Select your own multiplex panels from our menu of qualified mouse biomarkers using UltraPlex Modular. Provides access to a simple, rapid technology which can take you from staining to imaging and analysis, generating high-content data, within a day. Maximize your data and time!

Mouse KRAS Tumor — High-Throughput Autostainer

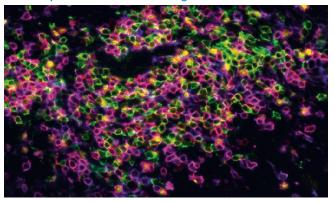


CD3, CD4, CD8, FoxP3

UltraPlex Benefits

- Modular Panels select your own biomarker & fluor combinations
- Select the number of slides you want to stain
- Manual staining or autostainer suggested protocols
- Single antigen retrieval step
- Easy, rapid, simultaneous staining using cocktails of antibodies
- Standard IHC lab workflow, two staining steps
- FFPE tissue optimized

Mouse Spleen — Manual Staining



CD3, CD4, CD8, FoxP3

- Data easily exported for image analysis
- Uses standard equipment
- Select from numerous markers including CD3, CD4, CD8, CD11b, B220, FoxP4, F4/80, CTLA4, KI-67, TIM3, and PanCK
- Inquire about <u>Custom Staining Panels</u> against your novel biomarkers
- Visit our website for more about <u>UltraPlex Mouse</u>
 Fluorescent Multiplex IHC

UltraTag Multiplex Labeling Kits

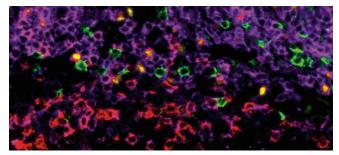
UltraTag multiplex labeling kits allow you the freedom to transform your great IHC antibodies into fluorescent or chromogenic multiplex IHC staining panels! Choose the number of biomarkers/kits required and then rapidly transform your IHC antibodies from a single brown stain into 4-color fluorescent multiplex or 3-color chromogenic multiplex immunohistochemistry panels. UltraTag kits efficiently label 50µg @ 1.0 mg/mL of high-affinity, purified antibody in ~2 hours.

UltraPlex technology then allows simple, rapid tissue staining using cocktails of Tagged-primary and fluor or enzymelabeled anti-Tag secondary antibodies. You can go from staining to imaging to analysis in one day!

Advantages

- Simple labeling procedure, high efficiency Tagging, >80% recovery
- Inclusive kit contains UltraTag labeling reagent and fluor or enzyme labeled anti-Tag detector antibody
- Enables simultaneous detection of multiple primary antibodies from the same species in a single multiplex stain.
- Fluorescent and chromogenic labeling kits
- <u>UltraTag Multiplex Labeling Kits</u>

Tonsil

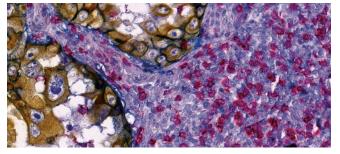


Fluorescent: CD4, CD8, PD-1, FoxP3

Fluorescent Multiplex Labeling Kits

- Select 4 different Fluorescent UltraTag kits to create a 4-plex fluorescent multiplex IHC panel.
- Two 4-kit sets available for imagers with (CL490, 550, 595, and 650nm) and without spectral unmixing (CL490, 550, 650, and 750nm).
- All components required to label 50µg of user-provided carrier-free antibody (e.g., no extraneous proteins, such as BSA, gelatin, or serum) @ 1mg/mL with >80% yield, and sufficient fluor-labeled anti-Tag detector antibody to stain 15–20 slides. Additional anti-Tag detector antibody is available.
- Only equipment required are a pipette and microcentrifuge

Lung Adenocarcinoma



Chromogenic: CD8, PanCK, PD-L1

Chromogenic Multiplex Labeling Kits

- Antibodies labeled with different Chromogenic UltraTag kits can be combined to create 3-plex chromogenic multiplex IHC panels using included enzyme-labeled anti-Tag antibodies
- All components required to label 50µg of user-provided carrier-free antibody (e.g., no extraneous proteins, such as BSA, gelatin, or serum) @ 1mg/mL with >80% yield, and sufficient enzyme-labeled anti-Tag detector antibody to stain 15–20 slides. Additional anti-Tag detector antibody is available
- Only equipment required are a pipette and microcentrifuge.
- Components needed for staining but not supplied include chromogens and HRP-arrest solution

How Do I Know If My Antibody Is A Good Candidate for Labeling with UltraTag Kits?

- The 50µg antibody is at 0.9–1.1mg/mL in buffer free of extraneous proteins such as BSA, serum, or gelatin. Antibody formulations containing azide, trehalose, or other sugars, as well as, any buffer containing tris, are acceptable.
- Select antibodies that work well in your desired application. We recommend selecting clones which stain strongly at <1µg/mL when tested by conventional IHC. However, each antibody is different, and performance of individual clones cannot be guaranteed.

RightON & ReadySetGo Antibody Labeling Kits

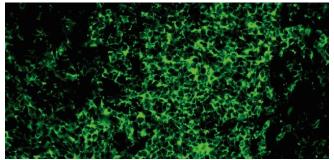
A Rapid, Easy Solution To Optimal Antibody Labeling

RightON Fluor & Biotin Kits allow you to label 50–100μg of purified antibody with an optimal number of fluors or biotin in a single vial — mix and ready to use in minutes. An optional rapid purification step to remove excess fluor or biotin is included.

RightON Biofluor & HRP Labeling Kits allow you to easily label 100µg of purified antibody with an optimal number of a variety biofluors or HRP

<u>ReadySetGo Kits</u> are your rapid, one-stop-shop solution to a complete antibody labeling and fluorescent or chromogenic detection system. The all-inclusive kit allows you to label your purified primary antibody with our RightON biotin and then detect with either a variety of streptavidin-fluors or streptavidin-HRP followed by your choice of red, blue, yellow, or DAB (brown) chromogens.

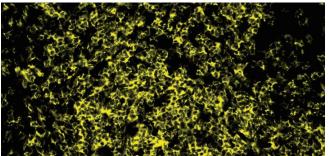
RightON 490



RightON Fluor & Biotin Antibody Labeling Kits

- Choice of fluors and biotin
- Mix & Use 15–30 seconds hands-on time,
 ~10 minutes start to finish
- Optional, simple <5 minute final purification step is included
- 95–100% antibody yield
- Optimal number of labels added per antibody
- Labels 50–100μg antibody at 0.5–1.0 mg/mL
- For use with purified antibodies in buffer free of tris buffer or extraneous proteins such as BSA, serum, or gelatin

RightON 550



RightON Biofluor & HRP Antibody Labeling Kits

- Choice of biofluors and HRP
- Optimal number of labels added per antibody
- Labels 100µg antibody at 1.0 mg/mL
- For use with purified antibodies at 0.9–1.1mg/mL in buffer free of extraneous proteins such as BSA, serum, or gelatin

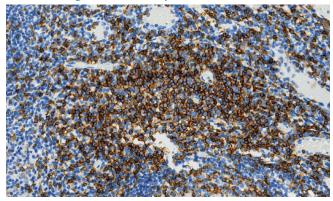
ReadySetGo Antibody Labeling & Detection Kits

- Biotin labeling of 50–100μg purified antibody at 0.5–1.0mg/mL
- Choice of streptavidin-fluor or streptavidin-HRP plus red, blue, yellow, or DAB chromogen
- Complete labeling and detection system in a rapid, easy to use kit
- For use with purified antibodies in buffer free of tris buffer or extraneous proteins such as BSA, serum, or gelatin

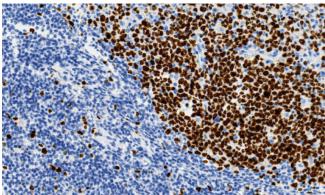
UltraPolymer Anti-Species-HRP Secondary Antibodies

UltraPolymer anti-species IgG (H&L)-HRP detection reagents are highly sensitive, low background detection reagents, fully optimized for IHC and use on either the autostainer or manual staining. Available for use with mouse, rabbit, rat, or goat primary antibodies.

Anti-Rabbit IgG-HRP UltraPolymer



Anti-Mouse IgG-HRP UltraPolymer



- Highly sensitive & specific secondary antibodies
- Low background
- IHC-optimized
- Optimized for use on the autostainer or for manual staining
- Species-specific HRP conjugates to detect mouse, rabbit, rat, or goat primary antibodies
- Cost-effective, highest quality detection
- More info at UltraPolymer HRP Detection

Available in 15mL, 50mL, and bulk sizes.

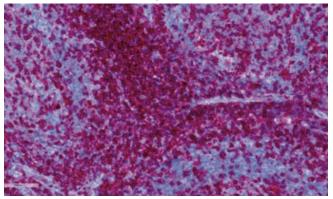
Cell Palette Chromogens & IHC Reagents

Cell Palette chromogens are highly sensitive chromogen substrates optimized for IHC staining with HRP- and AP-labeled detection reagents. Our kits come in a variety of sizes and comprise a 50X chromogen concentrate and diluent buffer — just mix and use! We also offer purple and blue hematoxylin counterstains and ChromoSealant for preserving and sealing IHC stains prior to mounting. Review our range of solutions at Chromogens & IHC Reagents.

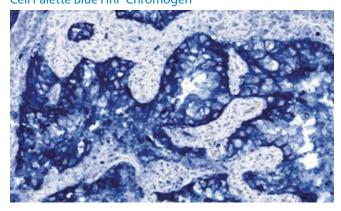
Cell Palette Chromogen Kits

- High sensitivity, low background
- Red alkaline phosphate (AP) chromogen substrate
- Blue, red, yellow, and DAB HRP chromogen substrate
- Supplied as a two-component kit

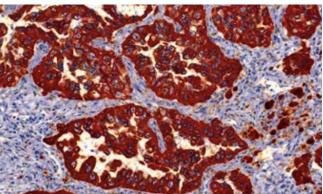
Cell Palette Red AP Chromogen



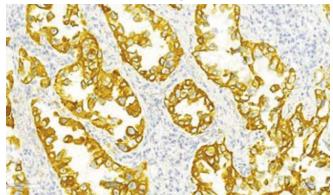
Cell Palette Blue HRP Chromogen



Cell Palette Red HRP Chromogen



Cell Palette Yellow HRP Chromogen



Counterstains

- Purple hematoxylin
- Blue hematoxylin

ChromoSealant

Sealant for preserving and sealing IHC stains prior to permanent mounting using resin-based mounting medium.

Path IDx Multiplex IHC Staining

Services & Custom Panel Development

Path IDx is a full-service CRO dedicated to meeting the multiplex immunohistochemistry needs of pharma, biotech, and academic researchers. We specialize in fluorescent and chromogenic multiplex immunohistochemistry staining, whole slide imaging, and image analysis of human and mouse tissues using our proprietary UltraPlex technology and reagents.



Panels can be selected from our range of qualified human and mouse biomarkers with a choice of fluorescent or chromogenic readouts; custom multiplex panels can be developed from user-supplied antibodies. Cell IDx also performs routine immunohistochemistry and immunofluorescence tissue staining as well as custom conjugation services. Our scientists work closely with you to ensure rapid, high-quality results.

- Chromogenic or fluorescent multiplex IHC panels
- Human or mouse specific panels
- Select a one of our premade panels or choose a modular panel from our range of qualified biomarkers
- Full custom panel development on demand
- Sectioning and staining of FFPE tissues

- Autostainer or manual staining
- Imaging providing whole slide scanning and digital data files
- Analysis of subpopulations of cells characterized by multiple biomarkers
- Pathologist review available
- Path IDx Staining, Imaging & Analysis

We pride ourselves on our responsive service, and care and attention no matter the size of the project. If you don't see the panel you are interested in, just call us — our menu of qualified biomarkers are continually expanding. Ask us about our custom solutions; we are happy to develop any panel of interest.

Please contact us to discuss your needs at (858) 452-5800 or info@cellidx.com

Did you know that Cell IDx is on <u>Scientist.com</u> and <u>ScienceExchange.com</u>? Sign in and send us a request today.







Our Vision

Cell IDx is a technology leader in multiplexed tissue profiling, developing highly sensitive and specific chromogenic and fluorescent multiplex immunohistochemistry reagents to meet the needs of precision medicine.

Our UltraPlex platform Tag technology has enabled the generation of UltraPlex fluorescent and chromogenic multiplex immunohistochemistry panels, providing simultaneous detection of multiple markers in tissue sections and allowing analysis of sub-populations of cells in situ in the context of tissue morphology. Multiplex staining is achieved in virtually the same time it takes to perform a single marker stain, enabling truly rapid tissue phenotyping on a large scale.

Our vision is the widespread application of this technology to address both the present and future needs of the research and clinical markets in oncology, immuno-oncology and other disease states. We offer an everexpanding range of multiplex staining panels as well as rapid development of custom panels, tissue staining, imaging, and analysis services.

Contact Us

We invite you to learn more about our multiplex biomarker technology and see how it can further your tissue profiling and biomarker discovery research.

Please contact us to discuss potential collaborations, services, or licensing opportunities.

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