

# Discover your research potential

*Fully automated multiplex staining with  
DISCOVERY ULTRA staining system*

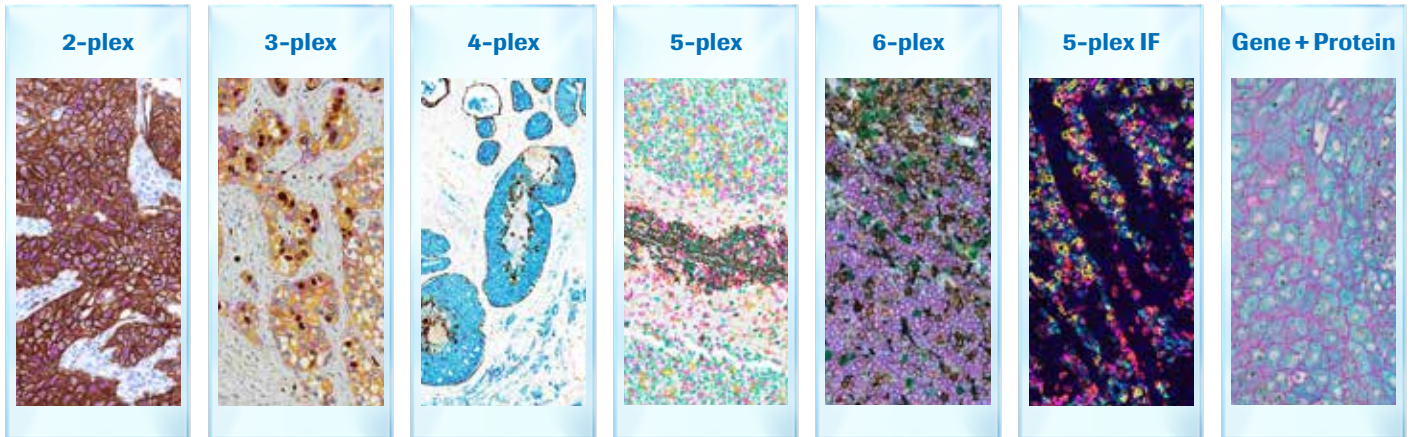




# Multiplexing on DISCOVERY ULTRA system

## Doing more with less

- Preserve precious samples
- Identify markers in context of tissue
- Understand co-expression and organisation of markers

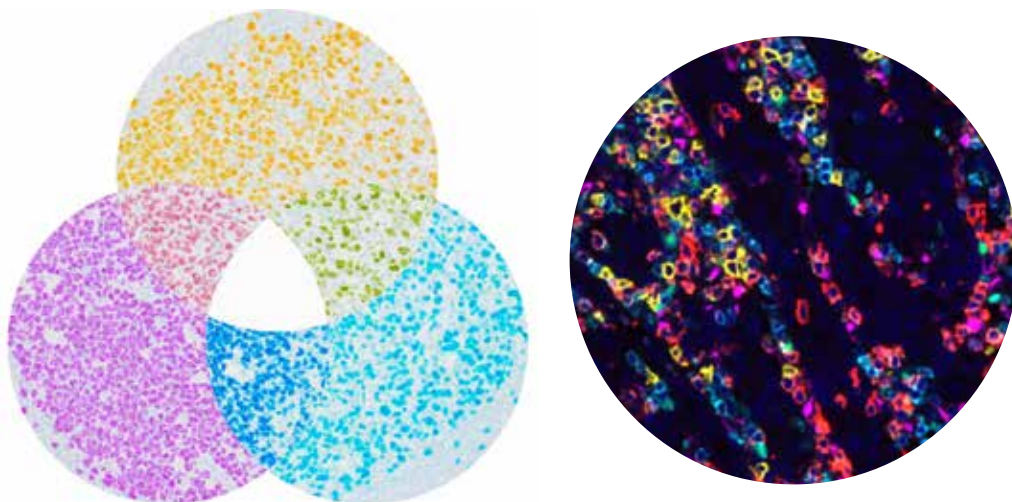


## Discover

- Marker localisation and interaction
- Panel development
- Increased diagnostic/predictive accuracy

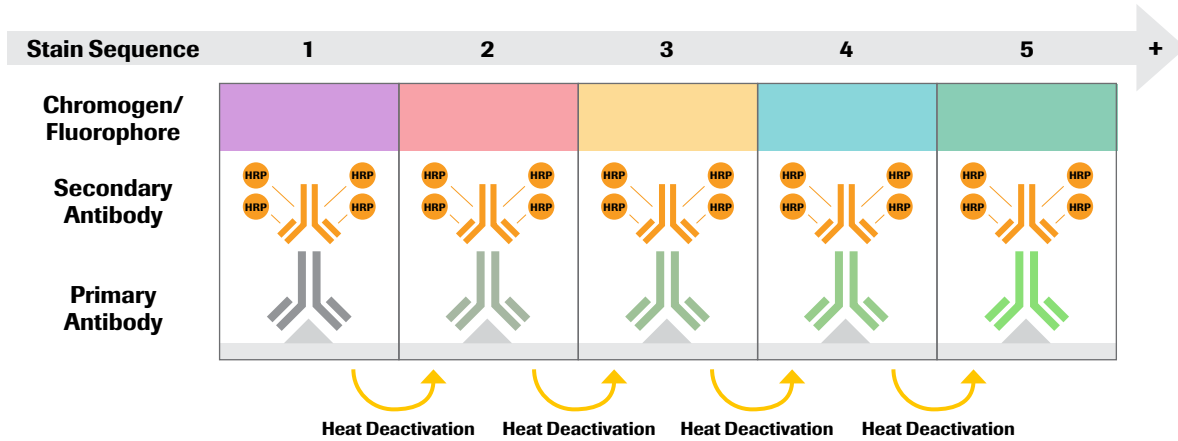
## Freedom to build your assay

- Advanced chemistry: Translucent chromogen technology creates new colors upon target co-localisation
- Tyramide fluorophores: Provide increased stability and signal intensity than conventional reagents
- Distinct absorbance spectra of new chromogens allows for visualisation with light microscopy and image analysis
- Up to 7 ready-to-use chromogens; up to 7 ready-to-use fluorophores
- Leverage a comprehensive menu of ready-to-use, fully automated research reagents to empower multiplex applications



## Fully automated, end-to-end staining

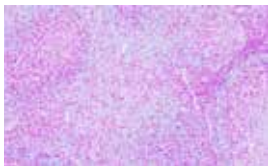
- Sequential staining provides the flexibility to stain any combination of up to 8 distinct markers (Protein, DNA, RNA or miRNA)
- Automated denaturing using heat and chemical deactivation, prevents cross reactivity
- Open or ready-to-use detection at any sequence allows you to customise your assay



## A Guide to Multiplexing

### 1. Optimise individually

- Stain each antibody individually to create a reference library and understand performance



CD4 with DISCOVERY Purple



CD8 with DISCOVERY Teal HRP detection kit



Ki-67 with DISCOVERY Green HRP



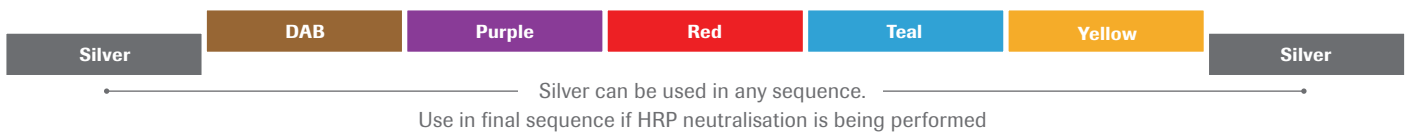
CD68 with DISCOVERY Yellow



Pan Keratin with DISCOVERY Silver

### 2. Determine your sequence of markers

- Markers can behave differently depending on the sequence in which they are stained—Test all combinations of DISCOVERY detection kits to find the optimal order
- Low expression targets should be placed first in the staining sequence
- Consider the cellular compartment that is to be stained—Start from the nucleus to membrane



### 3. Fine tune your assay!

- Adjust sequence and/or intensity of markers and detection
- Verify specificity through proper controls
- Ensure efficient denaturing to prevent cross reactivity
- Cross reference to single staining



Optimised IHC 5-plex on tonsil tissue

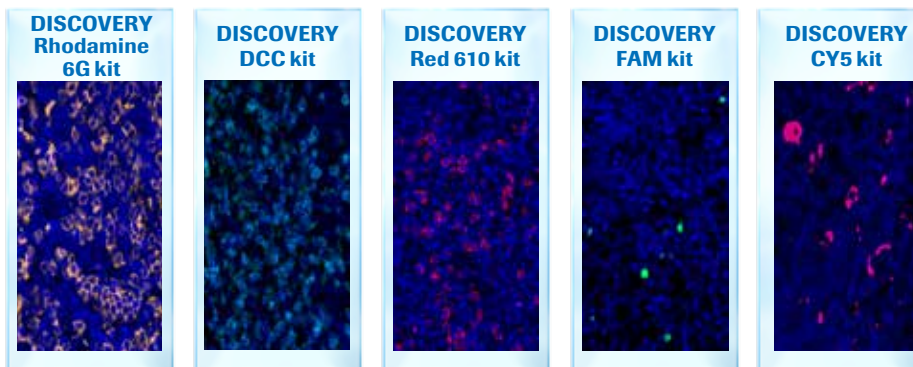
# Staining reference sheet

## Chromogenic detection



Product name	Catalog number	Ordering code
ChromoMAP DAB kit	760-159	05266645001
DISCOVERY Purple kit	760-229	07053983001
DISCOVERY Silver kit	760-227	07053649001
DISCOVERY Teal HRP kit	760-247	08254338001
DISCOVERY Red kit	760-228	07425333001
DISCOVERY Yellow kit	760-239	07698445001
ChromoMAP Blue kit	760-161	05266661001

## Fluorescent detection



Product name	Catalog number	Ordering code
DISCOVERY Rhodamine 6G kit	760-244	07988168001
DISCOVERY DCC kit	760-240	07988192001
DISCOVERY Red 610 kit	760-245	07988176001
DISCOVERY FAM kit	760-243	07988150001
DISCOVERY CY5 kit	760-238	07551215001
DISCOVERY FITC kit	760-232	07259212001
DISCOVERY Rhodamine kit	760-233	07259883001

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