

Maximize Your Research Through Multiplexing Technology

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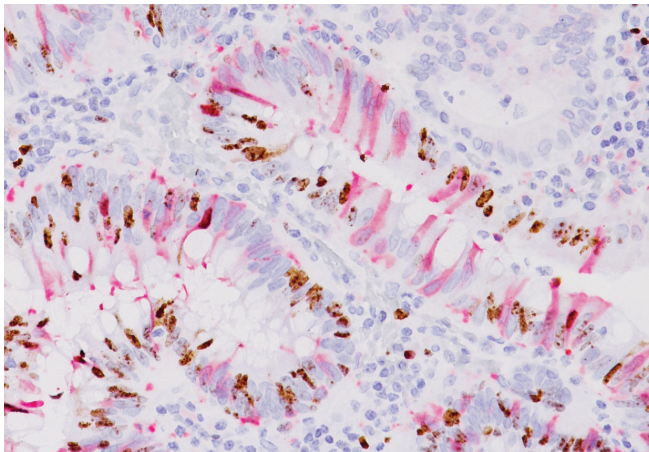
Researchers understanding of molecular biomarkers that define normal and disease states is constantly evolving. To accurately characterize cell population, novel assays, technologies, and imaging platforms are required.

Multiplex immunohistochemistry (IHC) is one avenue increasing the capabilities of clinical research, providing researchers with tools to investigate complex and heterogeneous tissues in a powerful manner. Unlike next generation sequencing and mass spectrometry, multiplex IHC allows for the examination of spatial arrangement of target proteins and well as protein interaction/co-localization. Multiplexing allows for many advantages including:

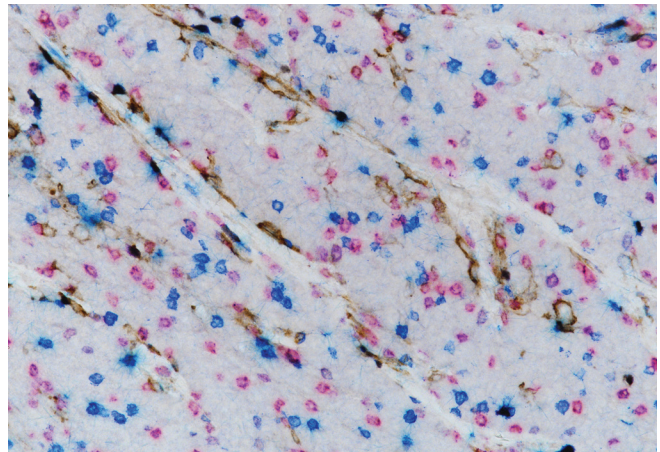
- Simplified procedures, Reduced turn-around time
- High number of protein markers tagged to sample¹
- Reduced costs and labor by >50%
- High data output allowing for multiple markers on a single slide¹
- Preserve precious tissue specimens
- Reduced error compared to multiple single stain assays.¹

Biocare Medical is the proven leader in providing antibody cocktails and detection platforms that enable sequential and simultaneous IHC staining. These products allow morphological distinction of the antigens on a single slide, preventing redundant staining, especially in cases where tissue may be limited. Biocare offers biotin free micro-polymers for the simultaneous detection of both HRP and AP enzymes in a single solution and provide superior, sensitive staining in both human and animal tissue. For sequential multiplexing, Biocare offers polymers adsorbed against numerous species and Denaturing Solution (elution step) to eliminate cross reactivity between protocols. All Biocare's multiplex products can be used manually and on IHC instrumentation, both automated and semi-automated.

Advanced Multiplex Staining



Ki-67 (DAB) + Caspase-3 (Fast Red) cocktail (PPM240DSAA) in colon cancer



CD8 (Red), PD-L1 (Brown), FOXP3 (Black) and GITR (Blue)

To support your research needs, Biocare Medical offers primary antibody cocktails for nearly all disease states, secondary antibodies against a broad range of species (human and animal), and multiple chromogen colors to allow distinct visualization. Contact Biocare at 800-799-9499 or www.biocare.net to see how multiplexing can maximize your research.

1. Dixon, Angela, *et al.* "Recent developments in multiplexing techniques for immunohistochemistry". National Center for Biotechnology Information. 6 August 2015, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4810438/>.