Bringing IHC In House



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IHC (Immunohistochemistry) and H&E (Hematoxylin and Eosin) staining are both techniques used to visualize and study tissue samples under the microscope, but they differ in their purpose and methodology.

H&E staining is a routine histological staining technique that is uses hematoxylin and eosin staining solutions to visualize tissue architecture and to identify cellular and tissue abnormalities. In contrast, IHC is a specialized staining technique that uses antibody-antigen binding to detect specific proteins in tissue samples.

A histology lab with sufficient slide volume that is looking to expand their operations may consider bringing IHC on board. This decision to take on IHC cases can be intimidating for any lab without previous experience in IHC staining. However, the switch from core histology to immunohistochemistry brings many benefits with lower barriers to entry than one might expect. IHC is also read with a standard light microscope, and since both H&E and IHC are primarily run on formalin-fixed, paraffin-embedded (FFPE) sections, the same processing and sectioning procedure can be used for both.

Some Benefits of Bringing On IHC Cases Include:

Improved accuracy: By identifying antigens specific to certain disease states, such specific cancer types, IHC can help to improve the accuracy of histological diagnosis.

Increased diagnostic capabilities: IHC can expand the range of diagnoses that a histology lab can make. For example, autoimmune disorders may not be readily detectable by traditional H&E staining methods but may be detected by IHC staining.

Better patient outcomes: IHC can help to identify specific molecular targets in tissue samples, which can be used to guide treatment decisions. This can lead to better patient outcomes and more personalized treatment plans.

Faster turnaround times: IHC can provide faster results than other diagnostic tests, such as PCR or gene sequencing.

Increased revenue: By expanding the range of diagnostic services they offer, histology labs can attract new clients and therefore increase revenue.

A Lab That Wants to Bring On IHC Staining Will Need To Consider:

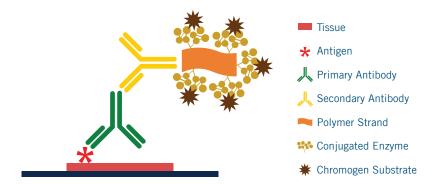
IHC staining equipment: IHC stainers are specialized instruments designed to stain IHC

Antibodies and reagents: IHC requires specific antibodies and reagents to detect the target protein in the tissue sample.

Optimized protocols: The lab should develop standardized and reproducible staining protocols that yield the best possible results. This includes finding the optimal antibody dilution, incubation time, and temperature, among other variables.

Quality control: The lab should develop a quality control process to ensure the accuracy and reproducibility of the results. This includes running appropriate controls and performing regular maintenance and calibration of equipment.

Trained staff: The lab should ensure that they have personnel who are trained in performing IHC, analyzing the results, and troubleshooting technical issues that may arise during the process.



Antibody-antigen binding action is used to create a chain between the antigen of interest and a colored label that will be visible under a microscope.

Biocare Medical's technical specialists can help our customers in making this transition by assisting with instrument setup, protocol optimizations, and staff training. To learn more about bringing IHC on board the Biocare support, please call our Technical Support line at 1-800-799-9499, Option 3.