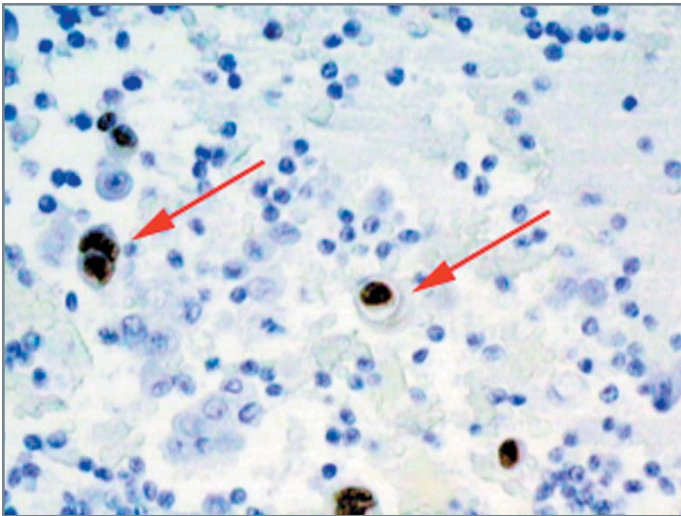


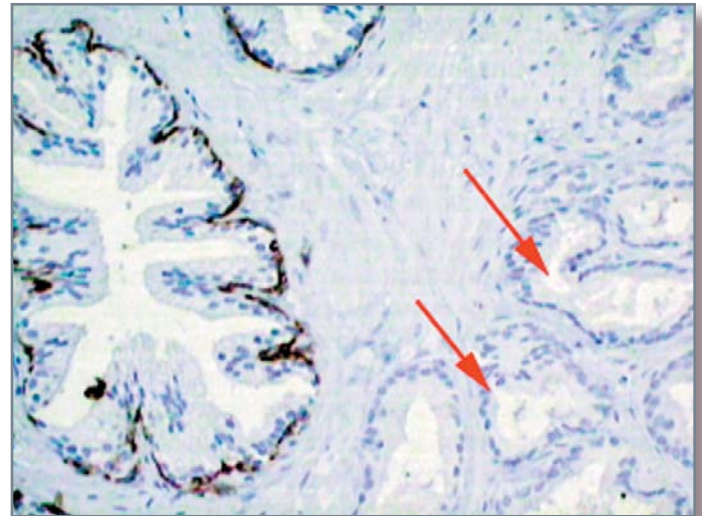
Successful identification of tumor type using IHC techniques can generally be performed on cells from body fluids, e.g., pleural or ascitic fluid, particularly if a cell pellet is prepared from this material, formalin fixed and then made into a cell block. While IHC can also be performed on air-dried cytology preparations, not uncommonly there are problems with loss of the cells in question during the immunostaining procedure; in addition, many antigens, particularly nuclear transcription factors such as TTF-1, are not preserved well in alcohol-fixed cytology preparations. The image (below left) highlights the demonstration of estrogen receptors in rare scattered tumor cells present in a pleural fluid cell block, helping to identify these as metastatic carcinoma from a breast primary.

In some instances, however, where the only tumor available for analysis has been cut and stained, the H&E slide(s) can be sent to PhenoPath Laboratories, where the coverslip can be removed, the tissue destained, and appropriate antibodies applied. The image (below right) demonstrates the identification of prostatic adenocarcinoma in a destained H&E-stained tissue section. Note the loss of outer cell layer using antibody 34 β E12 (arrows), which identifies outer cell layer on adjacent normal prostate glands. While IHC can generally be performed on previously stained sections, the tissue section can be lost during the process of removing the coverslip or during the immunostaining procedure itself, particularly in situations where the sections were not cut on the charged slides which are generally employed for IHC procedures. Therefore, this procedure is recommended only if no other tissue is available.

When in doubt about the use of a particular specimen for IHC studies, please phone our laboratory (1-888-92-PHENO), and one of our technologists will be happy to assist you.



Estrogen receptor-positive carcinoma cells in a pleural fluid cell block.



Identification of adenocarcinoma in a destained H&E slide of a prostate biopsy.