

Spotlight On:

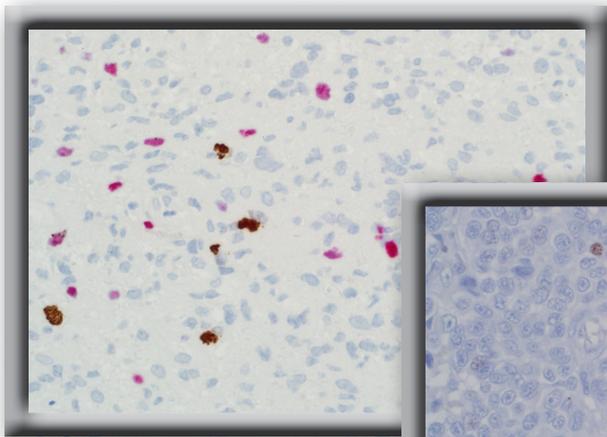
Phosphohistone H3 (PHH3)

Mitotic indexing is a common method for grading neoplasms of various types, such as meningiomas, melanomas, breast carcinomas, and soft tissue tumors. Historically the mitotic figures would be counted using H&E stains or Ki-67 immunohistochemistry. These results varied in both accuracy and efficiency of interpretation. Ambiguous morphologies would not allow for distinction from apoptotic figures, and lack of specificity for mitotic figures would not allow for distinction from distorted, pyknotic, or karyorrhectic nuclei. Histone H3, a chromatin protein that becomes phosphorylated during eukaryotic

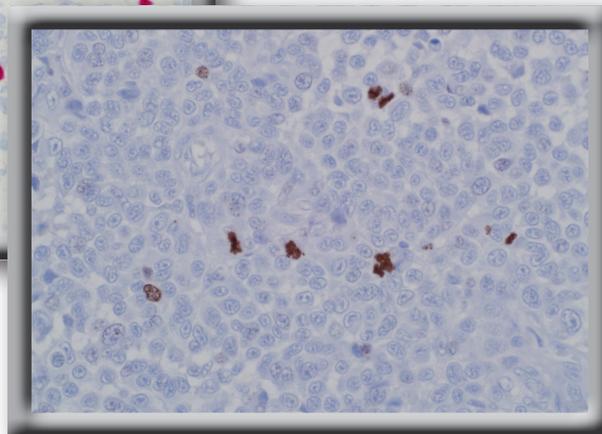
mitosis, is detected after this phosphorylation step during the prophase, metaphase, anaphase, and telophase stages. It is not detected during the interphase stage of mitosis. Immunohistochemical detection of phosphohistone H3 may be the most accurate method of labeling mitotic figures, and allows for the fastest counting of mitotic figures for mitotic indexing of any histological stain.

Benefits of PHH3

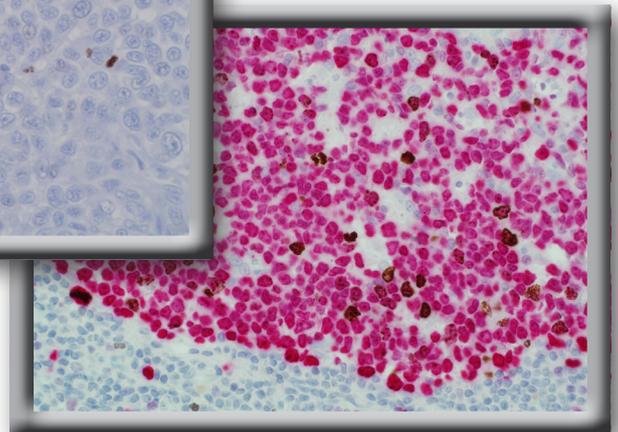
- For *in vitro* diagnostic use
- Faster identification of mitotic figures
- More accurate labeling of mitotic figures
- Distinction of mitotic figures from apoptotic figures
- Useful in a double stain with Ki-67 for distinguishing mitotic figures from other cells in proliferation cycle
- Essential for accurate grading of tumors



Phosphohistone H3 brown, Ki-67 red dual stain on glioma



Phosphohistone H3 brown lymphoid tissue



Phosphohistone H3 brown, Ki-67 red dual stain on tonsil

Ordering Information

0.1 ml concentrated 369A-14
0.5 ml concentrated 369A-15

1 ml concentrated 369A-16
1 ml prediluted 369A-17

7 ml prediluted 369A-18
5 Positive Control Slides . . . 369S