

Participant ID: 2b0577d1-e8ae-4d0a-bc75-7fcf3cfa39d7

Your Result: TP=67, FP=7, FN=21, Precision=0.905, Recall/Sensitivity=0.761, F1=0.827

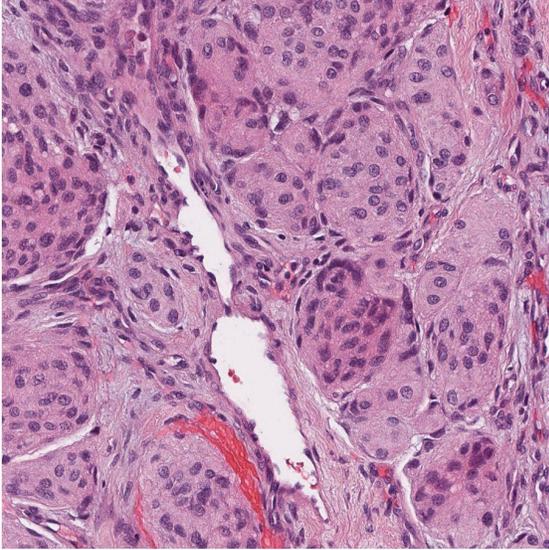
Time to Finish: 22 minutes 58 seconds

Nomenclature

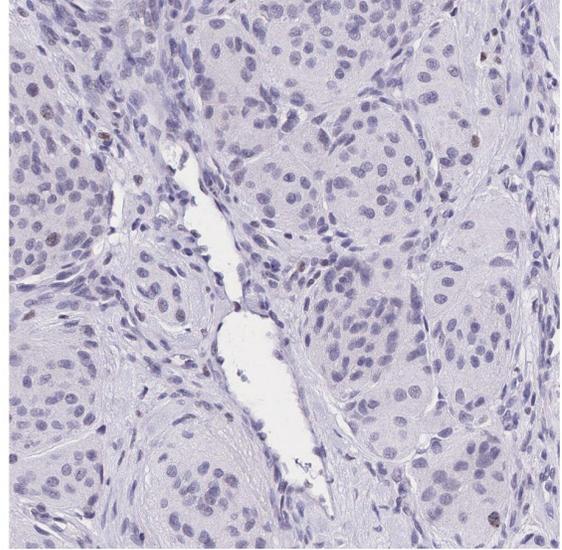
- **Ground truth:** mitotic events on H&E after referencing Phosphorylated Histone H3 (PHH3) IHC staining;
- **TP:** true positive, you labeled a ground truth mitosis correctly;
- **FP:** false positive, no ground truth mitosis is within 15 μ m of your label;
- **FN:** false negative, you did not label within 15 μ m of a ground truth mitosis;
- **Recall/Sensitivity:** $TP / (TP + FN)$
- **Precision:** $TP / (TP + FP)$
- **F1:** $2 * Precision * Recall / (Precision + Recall)$

Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

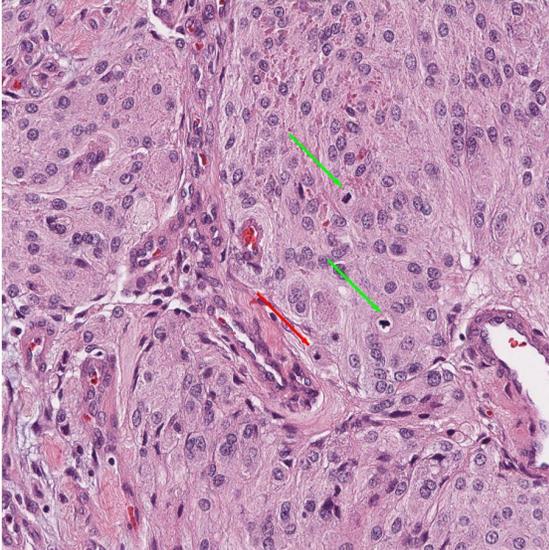


Phosphorylated Histone H3 (0.16mm²)

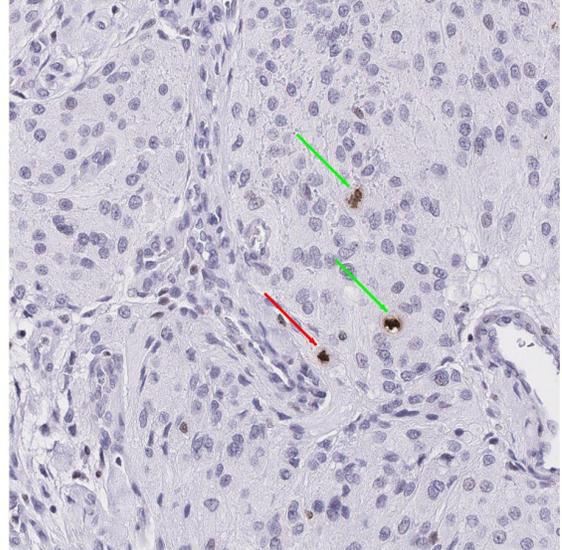


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

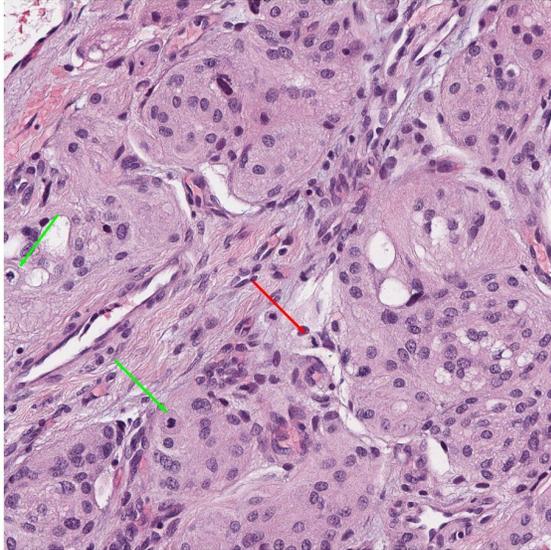


Phosphorylated Histone H3 (0.16mm²)

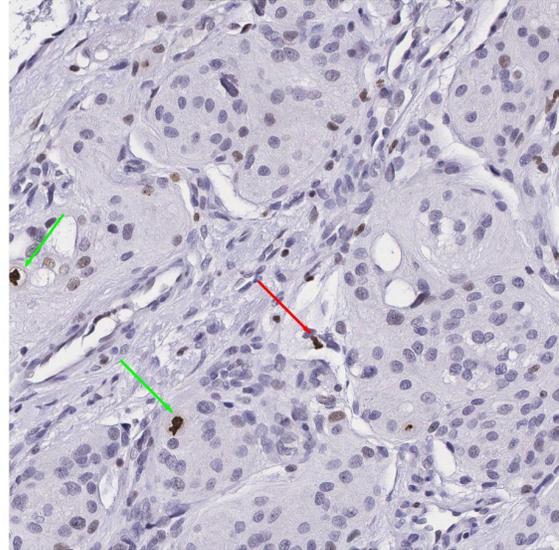


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

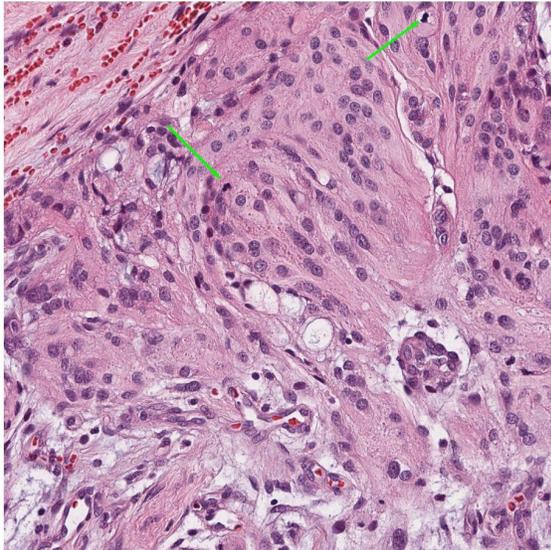


Phosphorylated Histone H3 (0.16mm²)

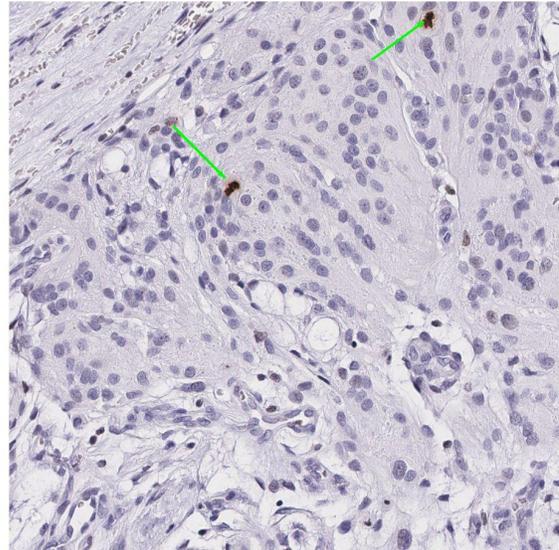


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

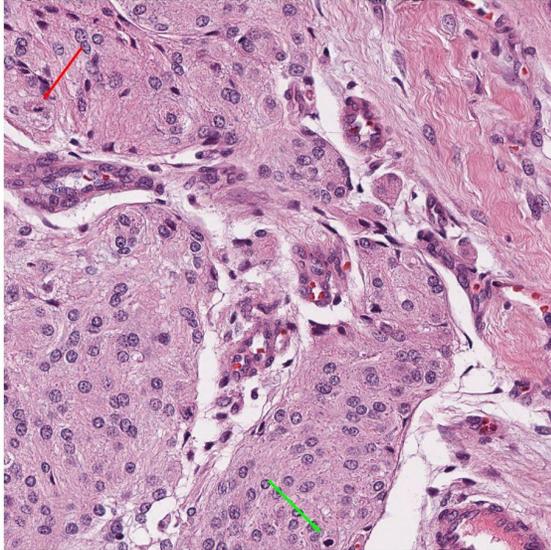


Phosphorylated Histone H3 (0.16mm²)

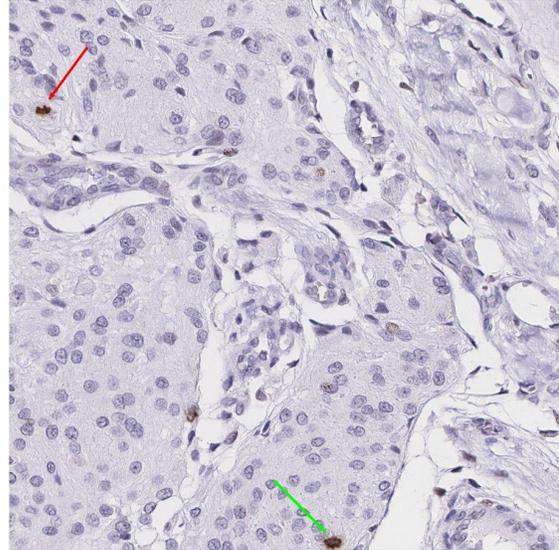


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

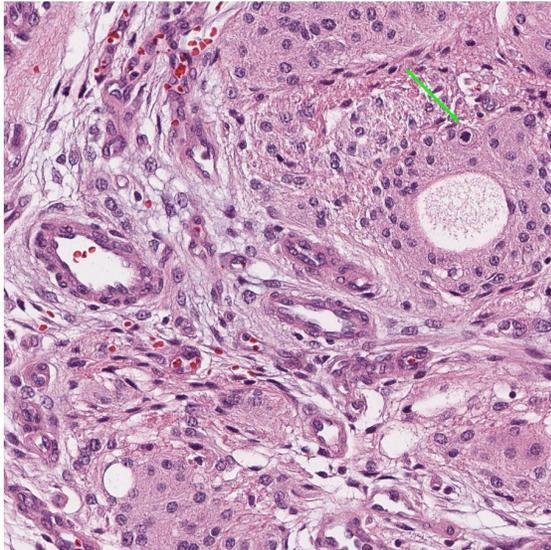


Phosphorylated Histone H3 (0.16mm²)

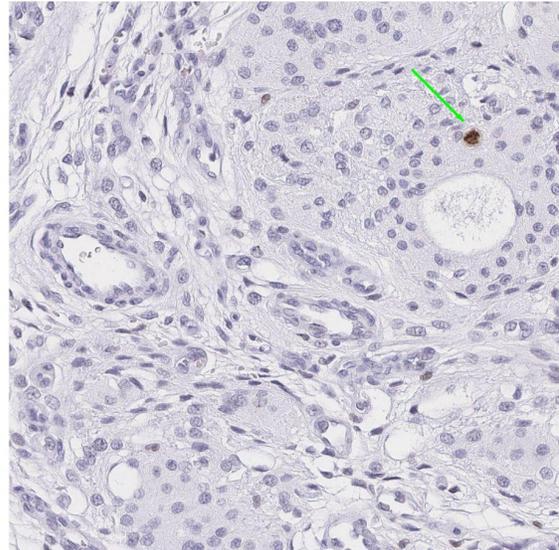


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

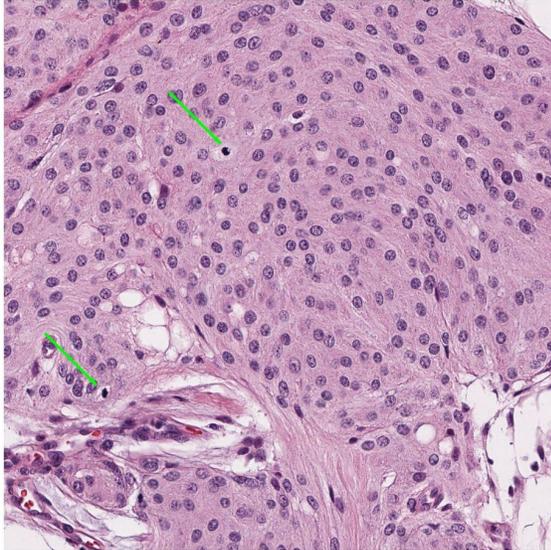


Phosphorylated Histone H3 (0.16mm²)

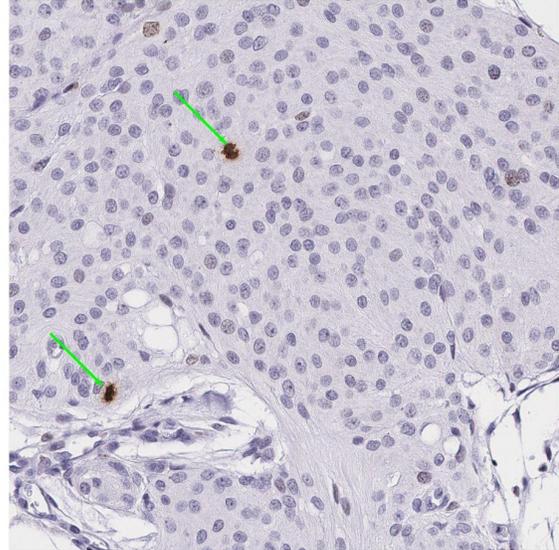


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

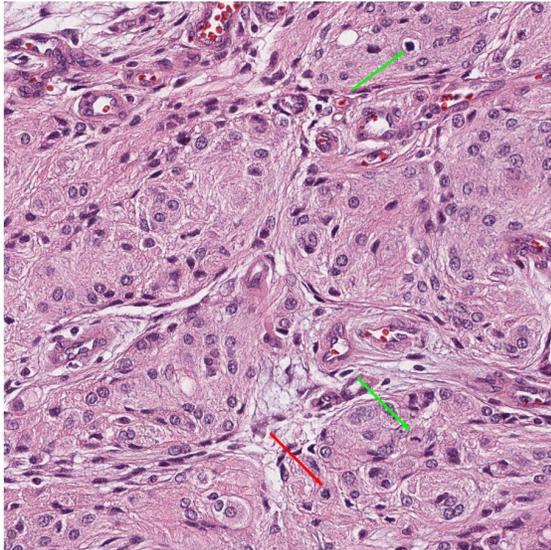


Phosphorylated Histone H3 (0.16mm²)

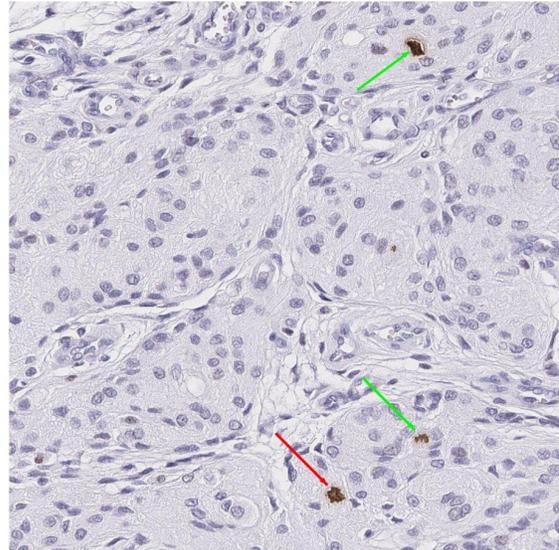


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

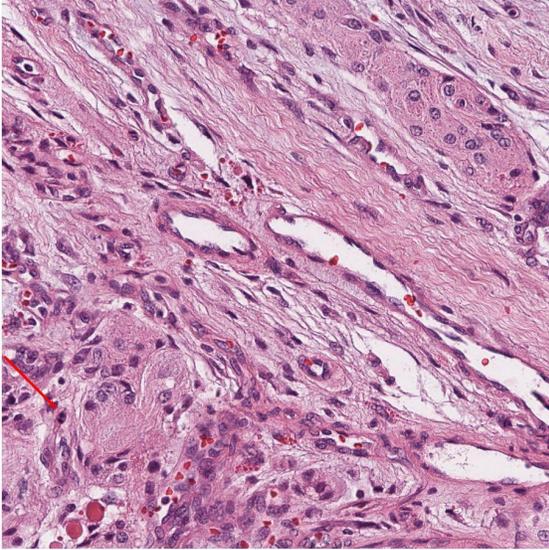


Phosphorylated Histone H3 (0.16mm²)

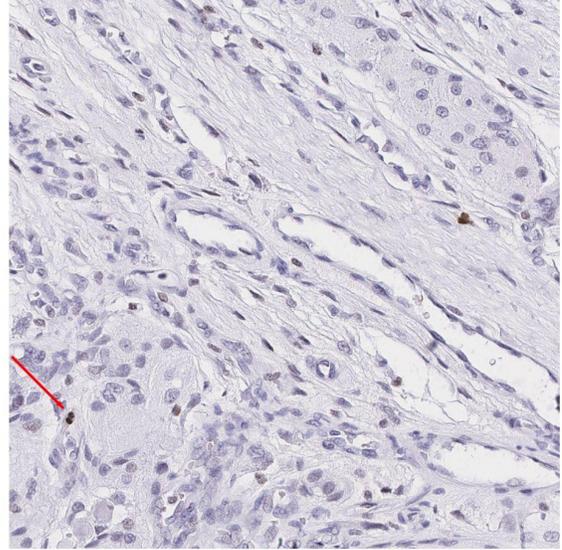


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

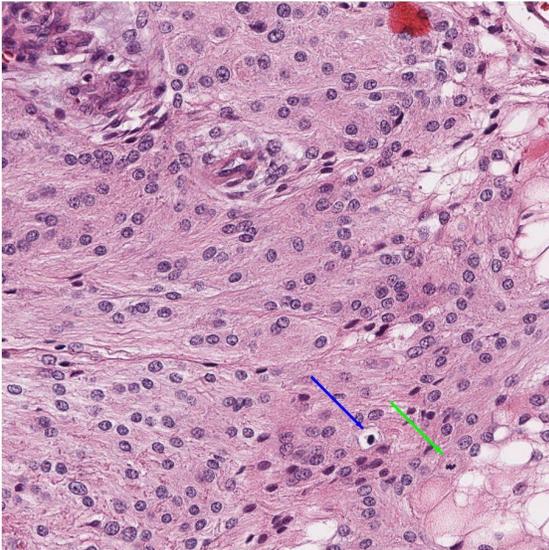


Phosphorylated Histone H3 (0.16mm²)

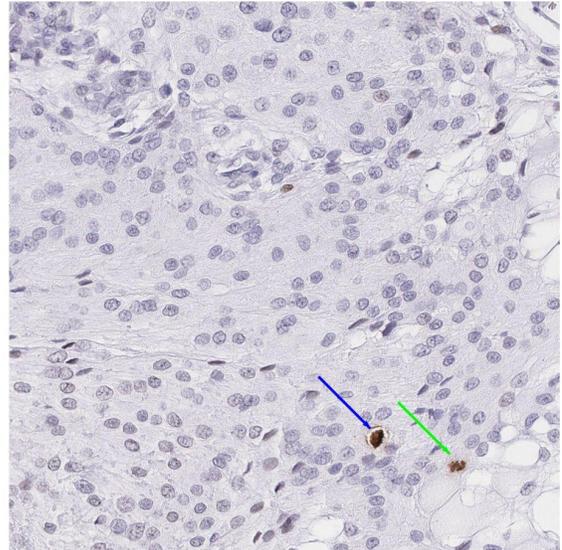


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

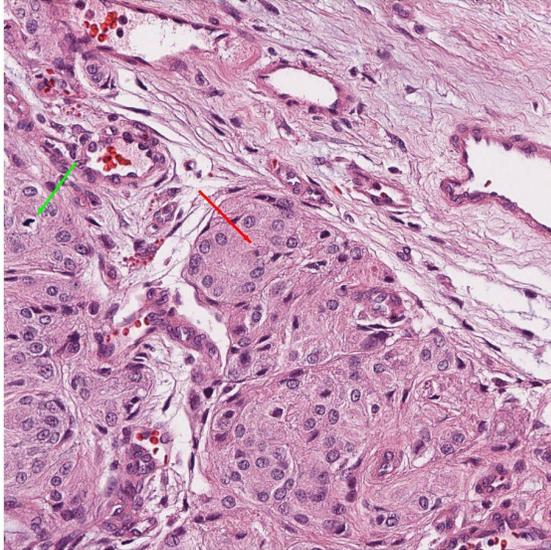


Phosphorylated Histone H3 (0.16mm²)

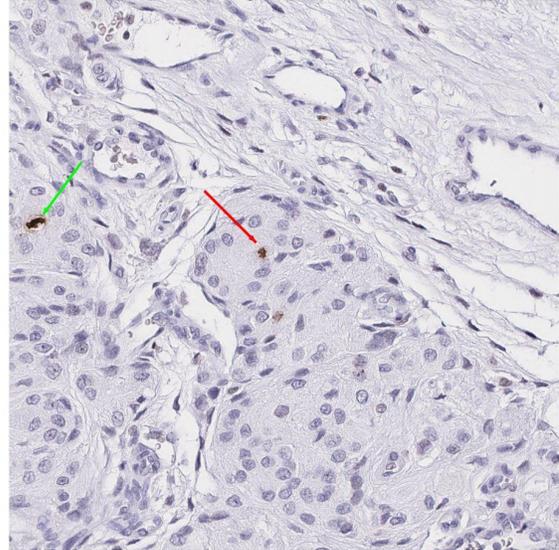


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

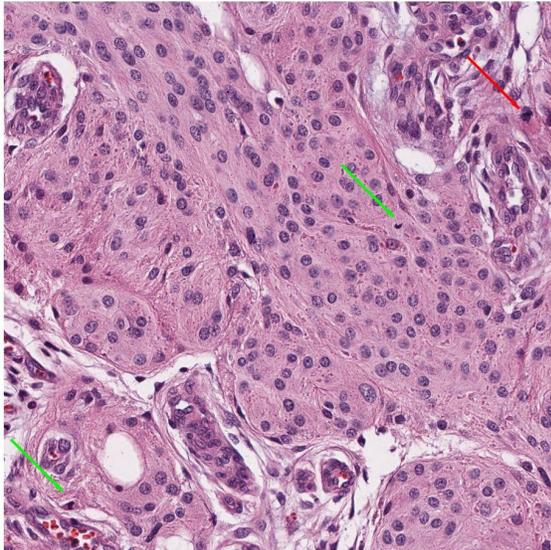


Phosphorylated Histone H3 (0.16mm²)

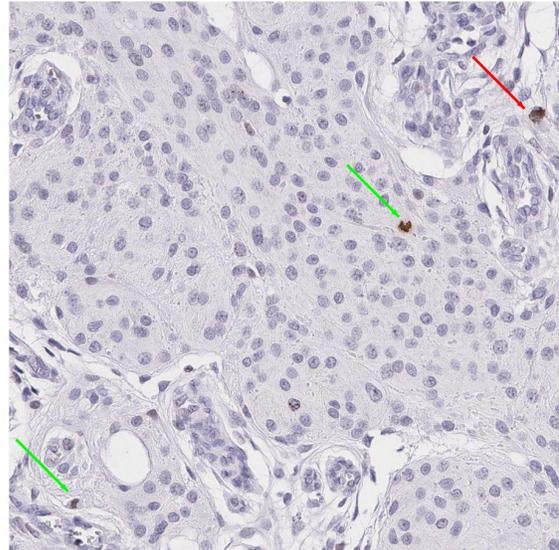


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

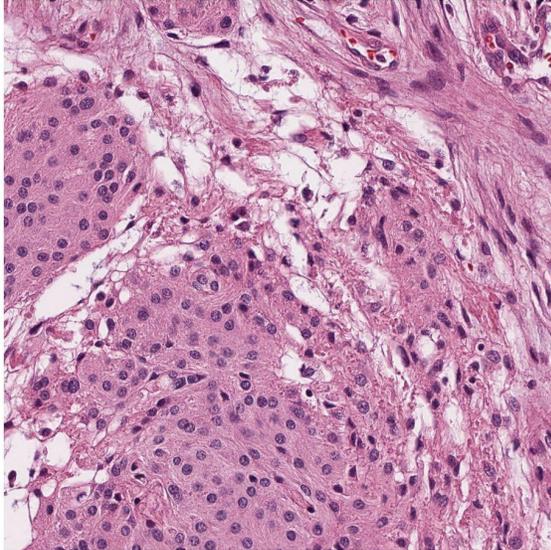


Phosphorylated Histone H3 (0.16mm²)

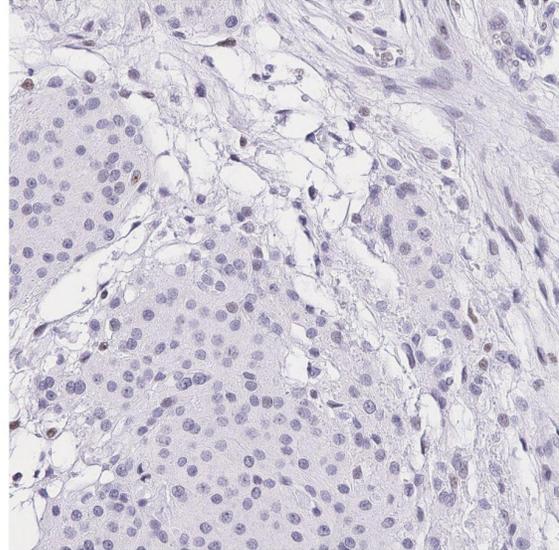


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

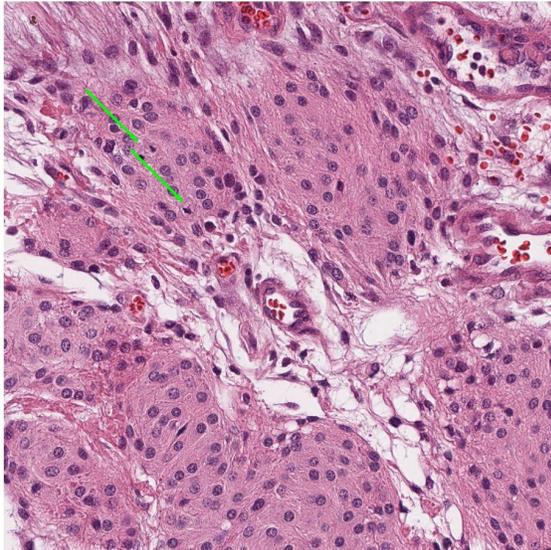


Phosphorylated Histone H3 (0.16mm²)

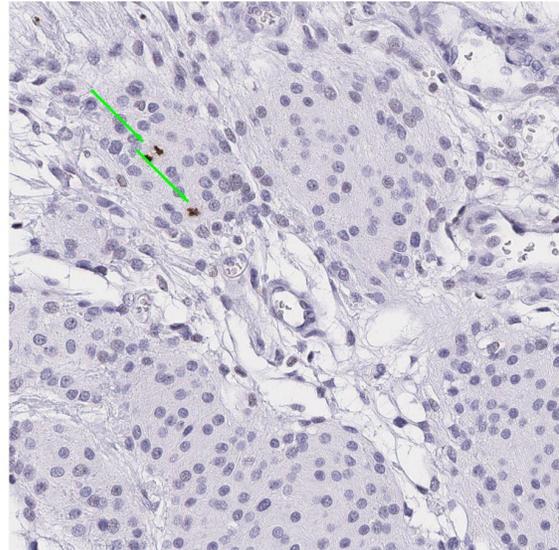


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

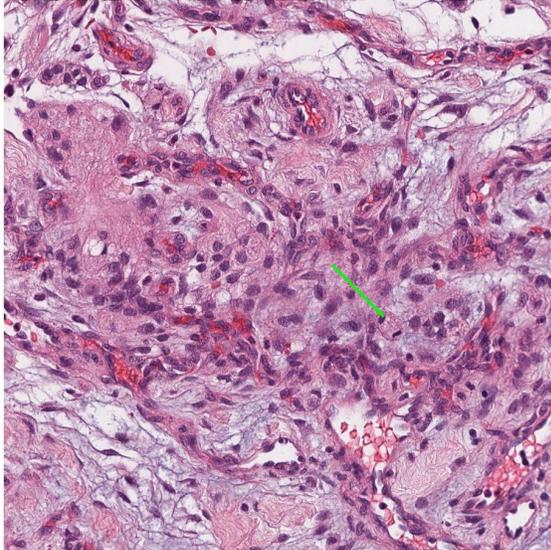


Phosphorylated Histone H3 (0.16mm²)

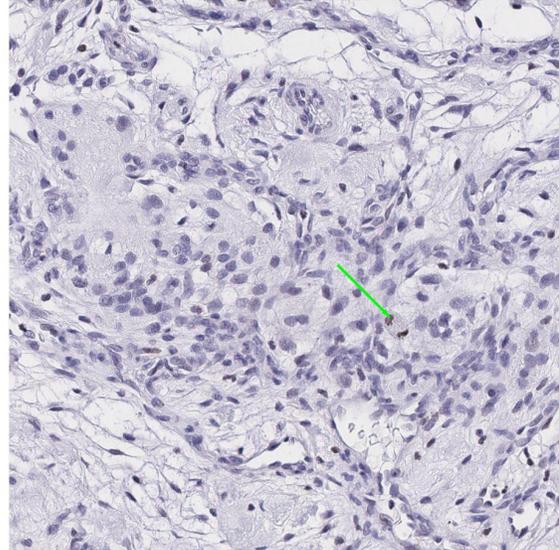


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

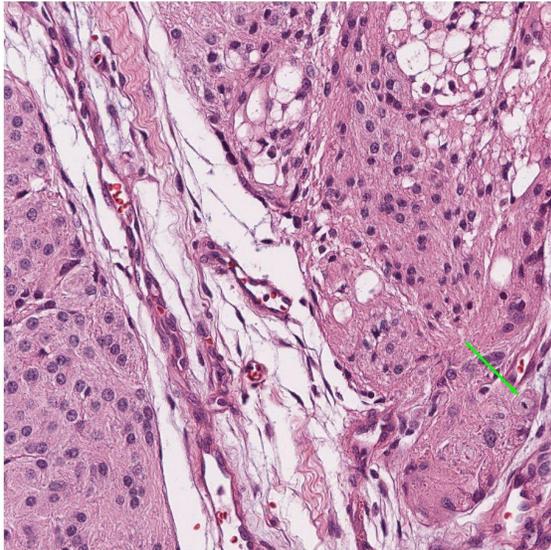


Phosphorylated Histone H3 (0.16mm²)

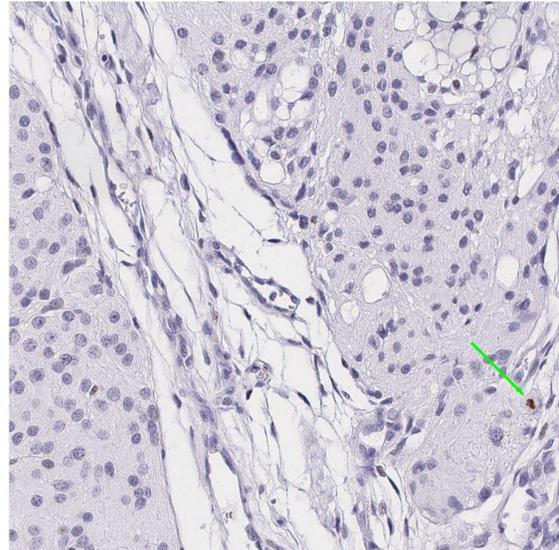


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

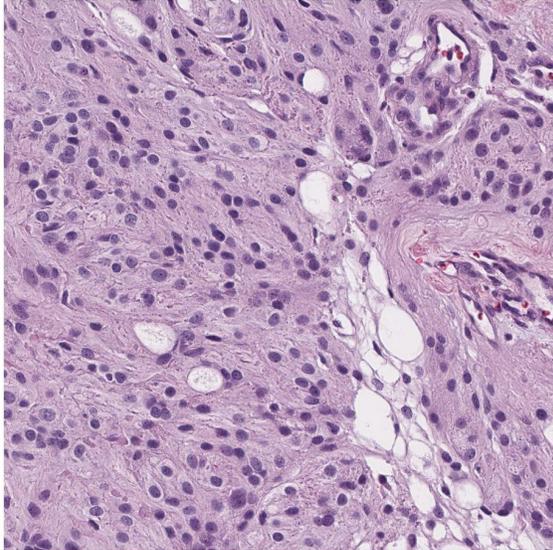


Phosphorylated Histone H3 (0.16mm²)

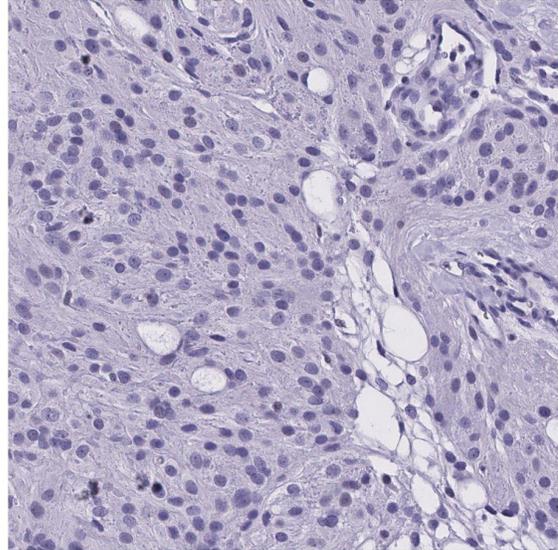


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

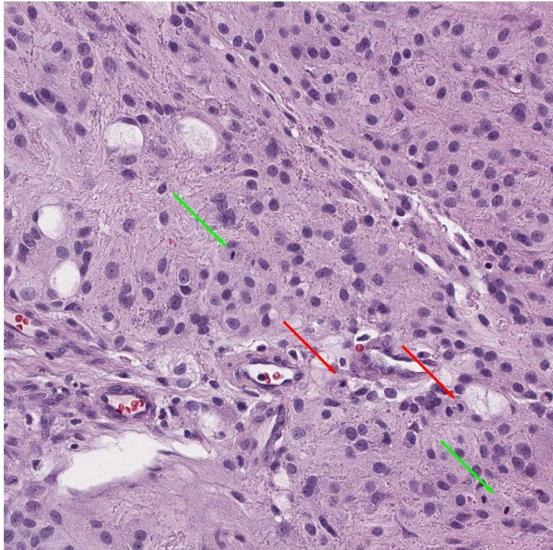


Phosphorylated Histone H3 (0.16mm²)

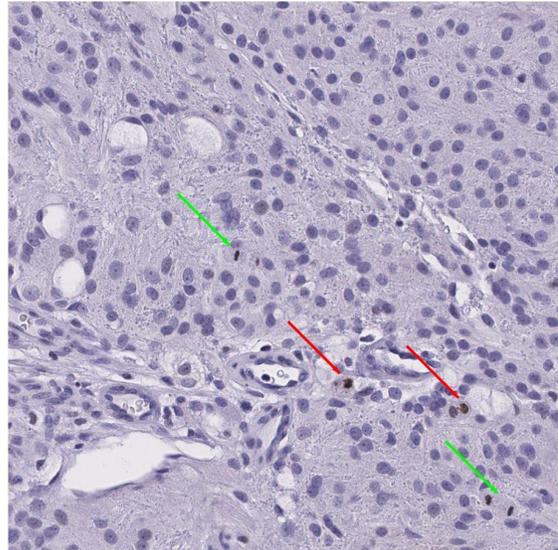


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

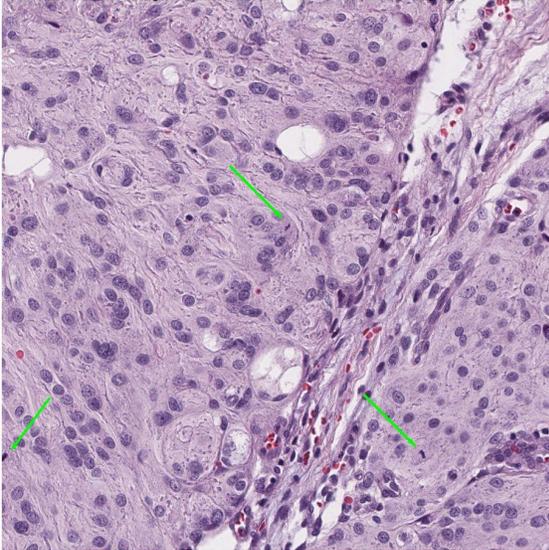


Phosphorylated Histone H3 (0.16mm²)

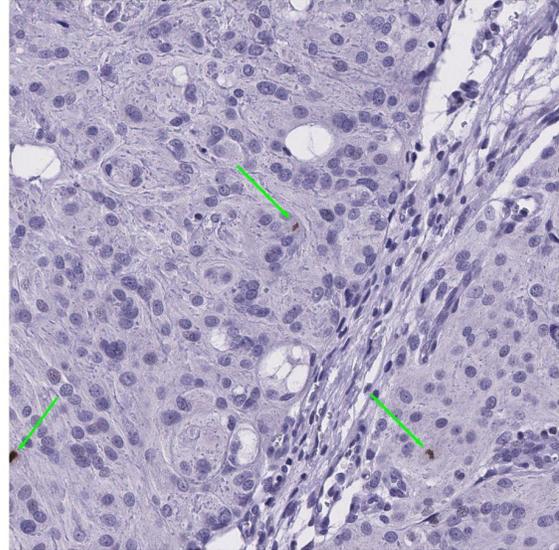


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

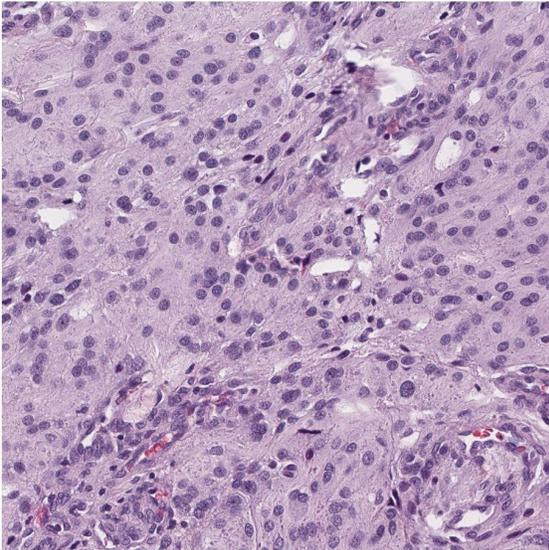


Phosphorylated Histone H3 (0.16mm²)

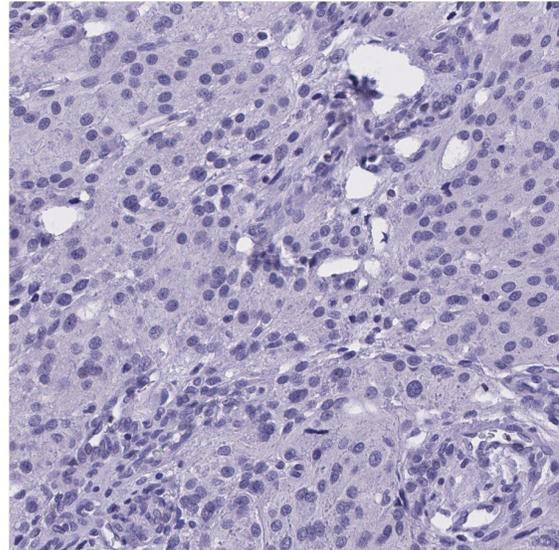


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

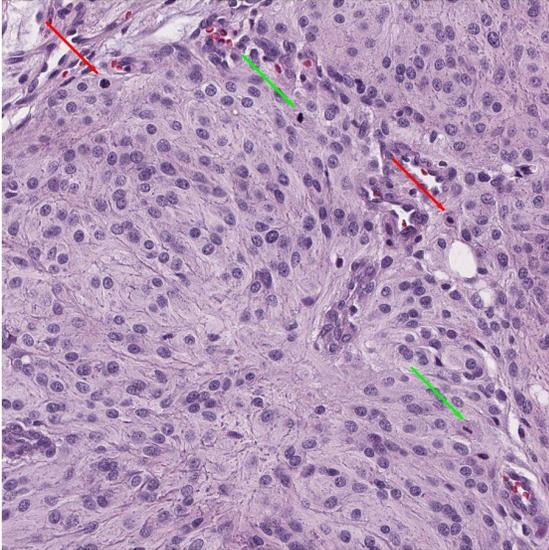


Phosphorylated Histone H3 (0.16mm²)

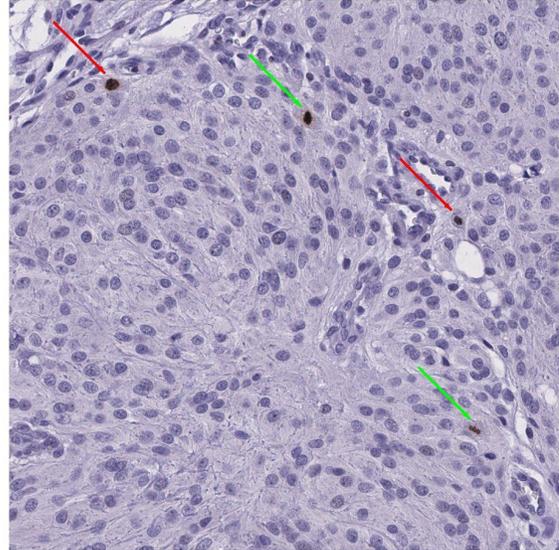


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

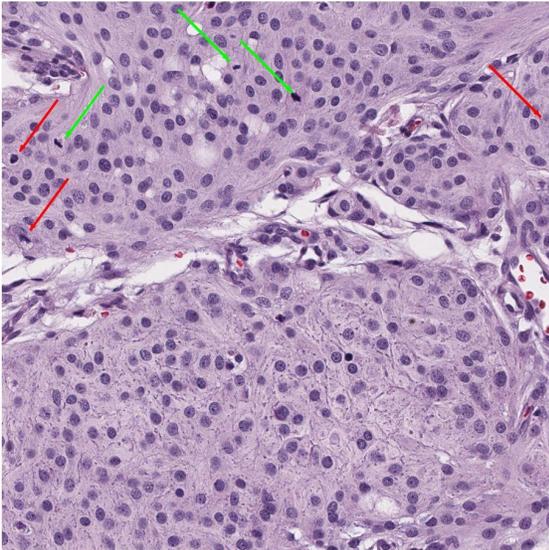


Phosphorylated Histone H3 (0.16mm²)

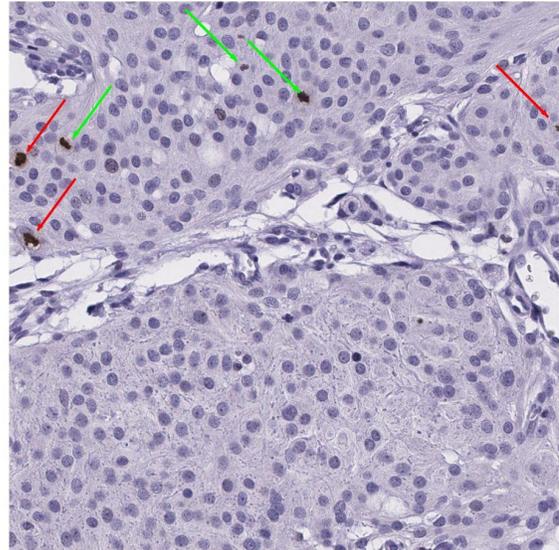


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

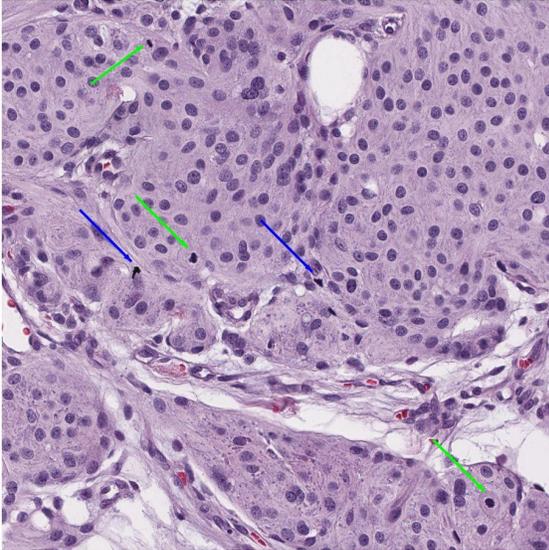


Phosphorylated Histone H3 (0.16mm²)

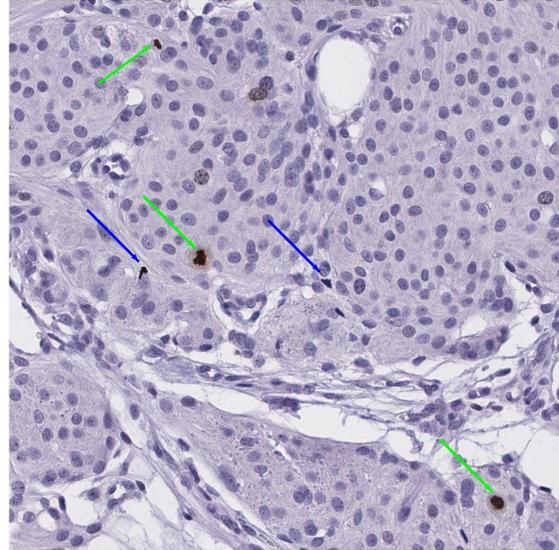


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

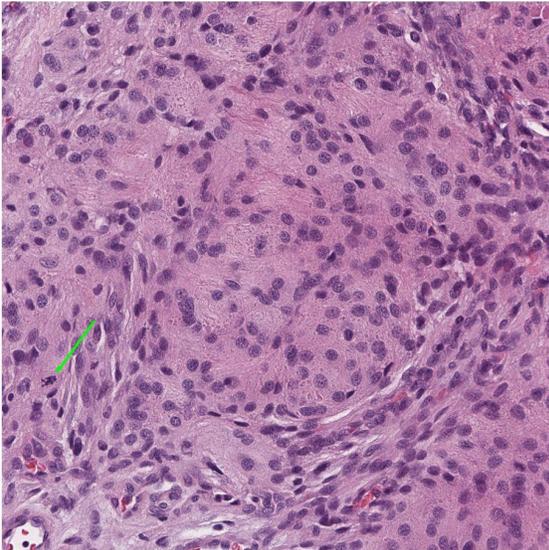


Phosphorylated Histone H3 (0.16mm²)

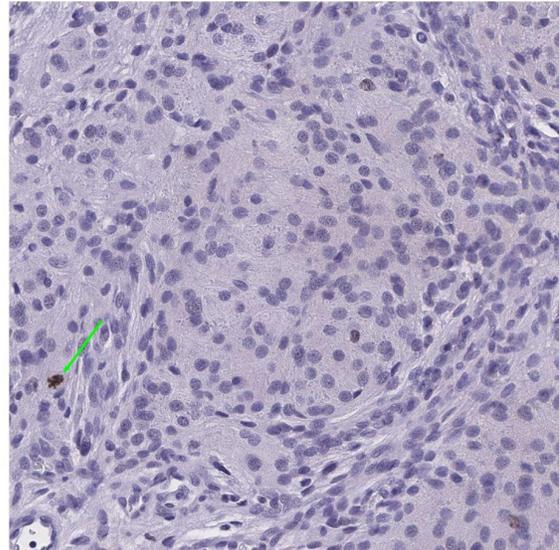


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

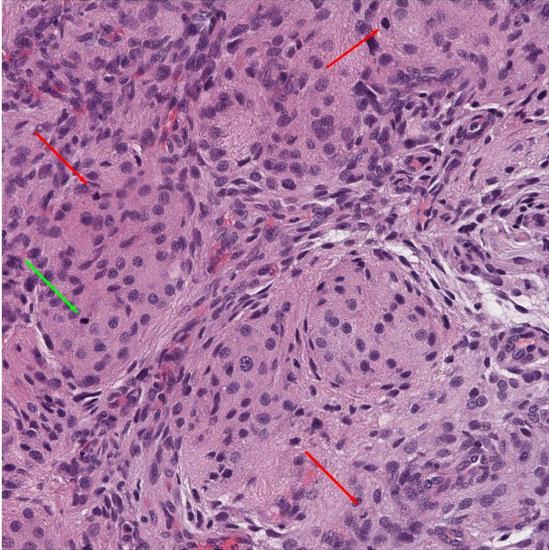


Phosphorylated Histone H3 (0.16mm²)

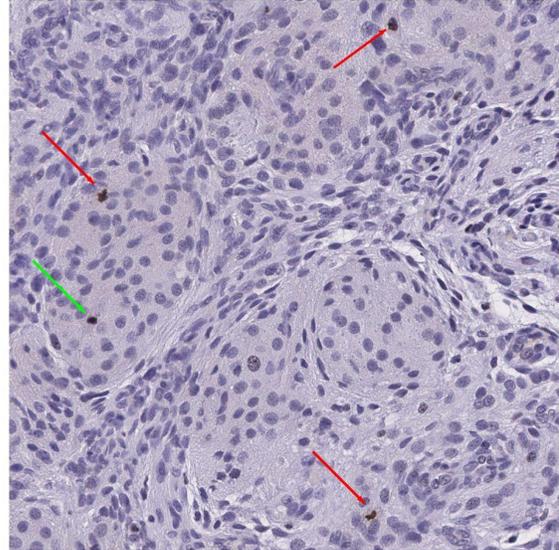


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

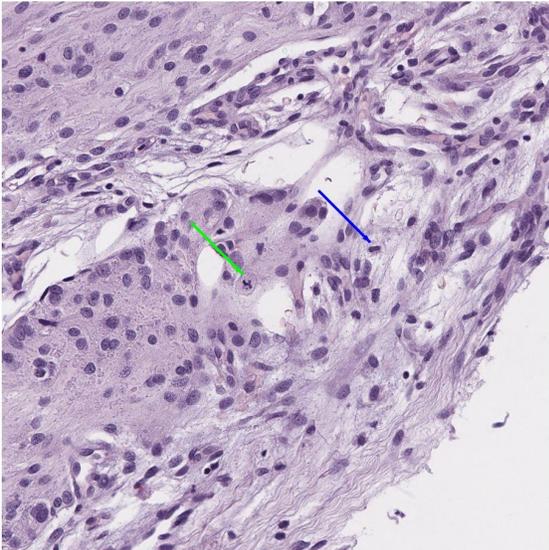


Phosphorylated Histone H3 (0.16mm²)

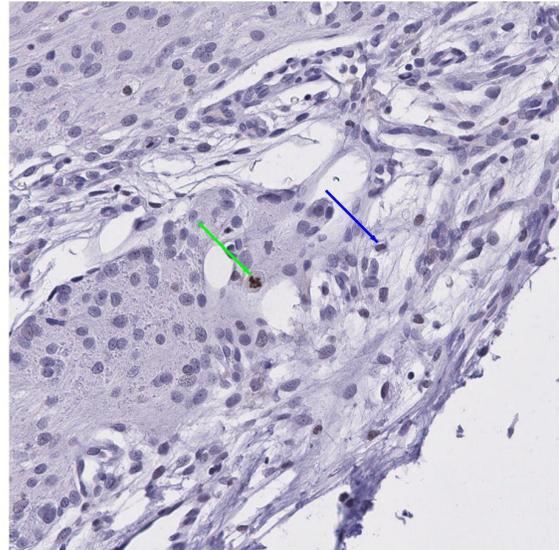


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

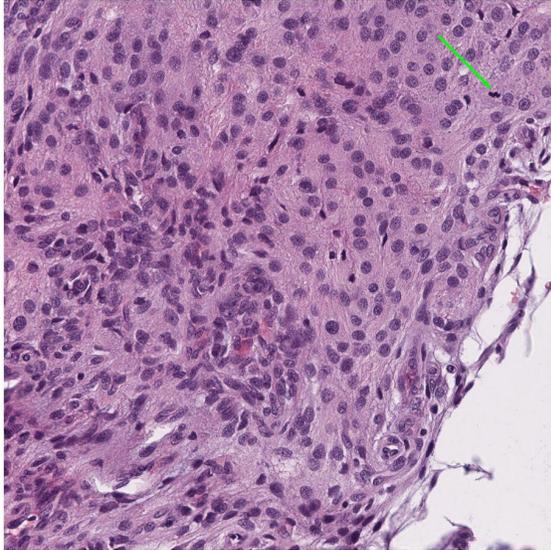


Phosphorylated Histone H3 (0.16mm²)

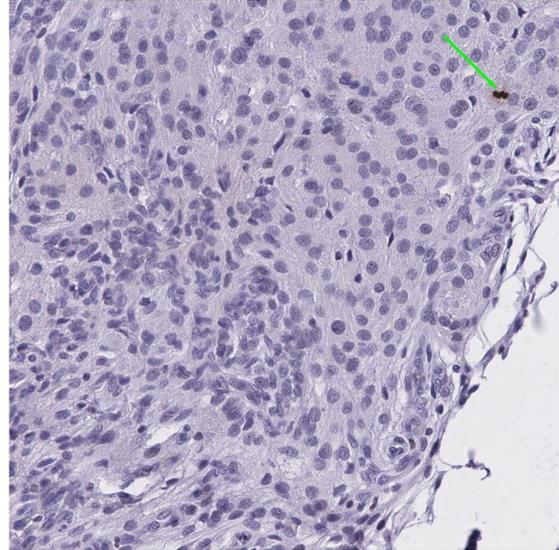


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

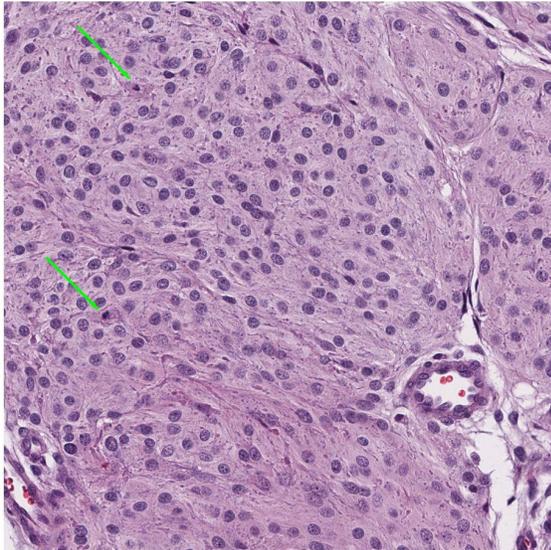


Phosphorylated Histone H3 (0.16mm²)

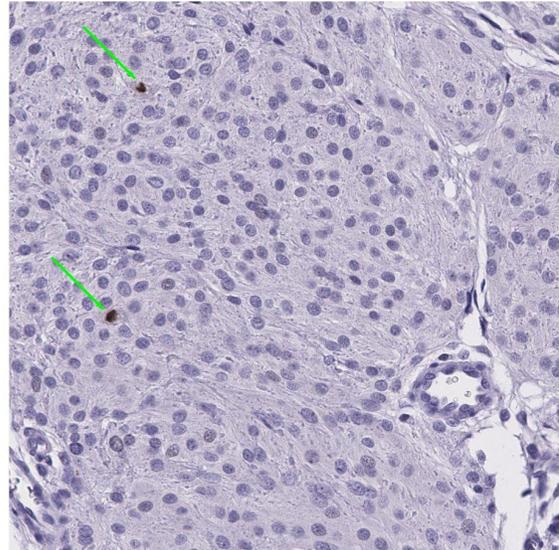


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

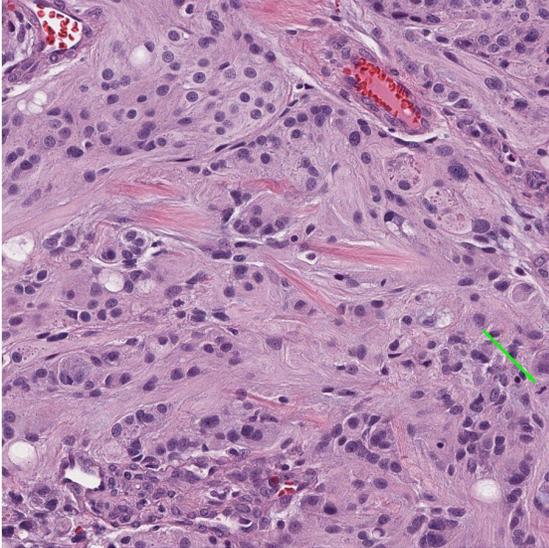


Phosphorylated Histone H3 (0.16mm²)

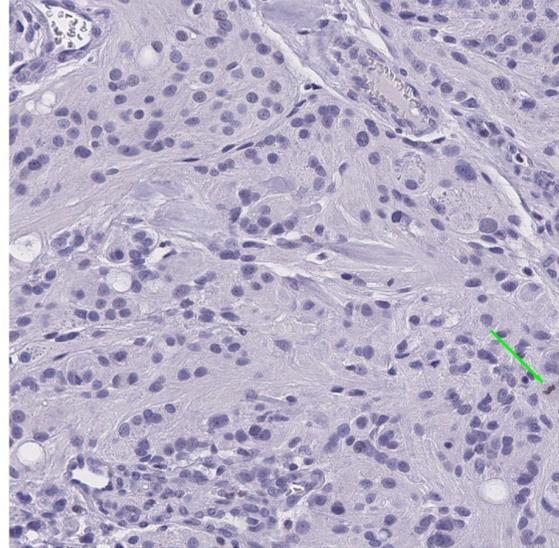


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

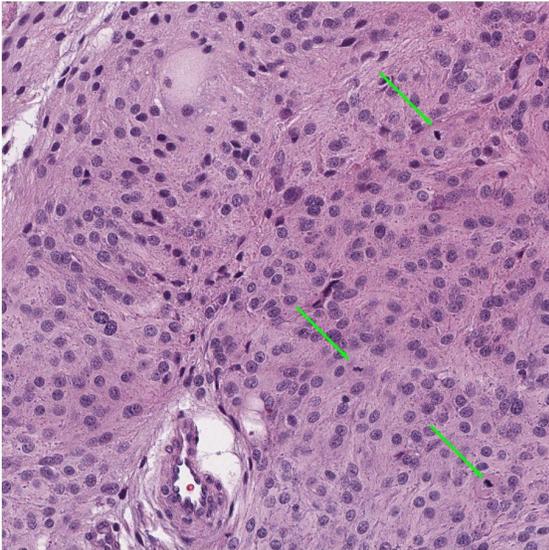


Phosphorylated Histone H3 (0.16mm²)

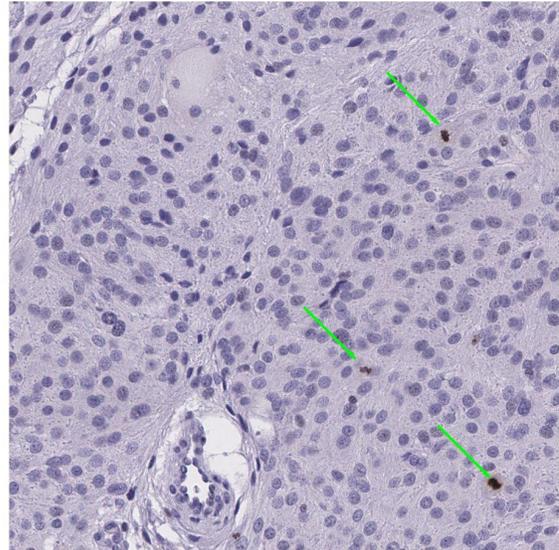


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

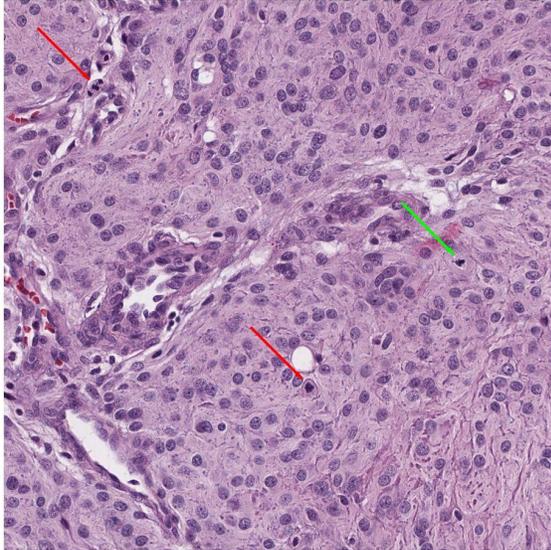


Phosphorylated Histone H3 (0.16mm²)

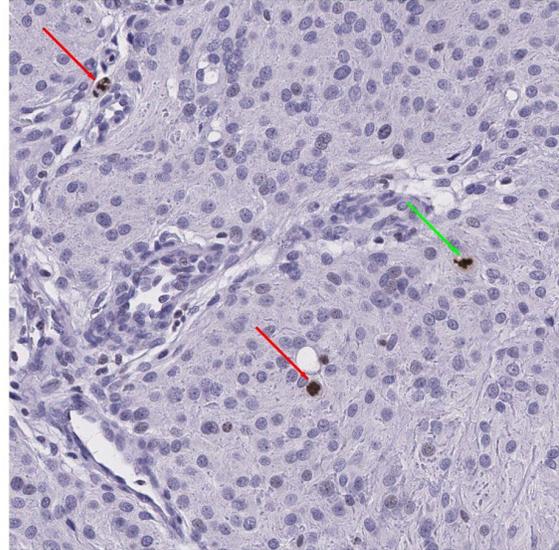


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

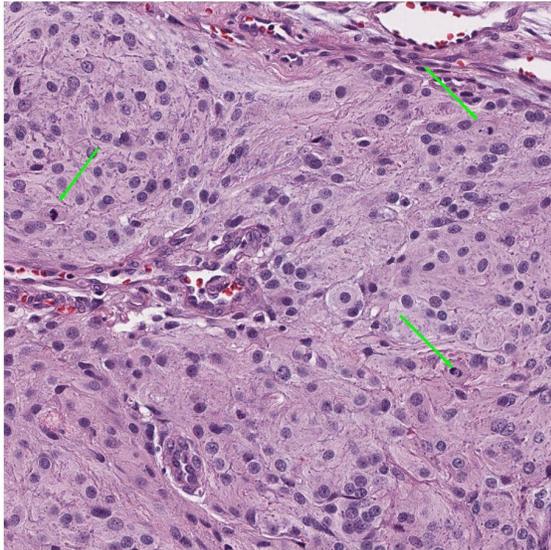


Phosphorylated Histone H3 (0.16mm²)

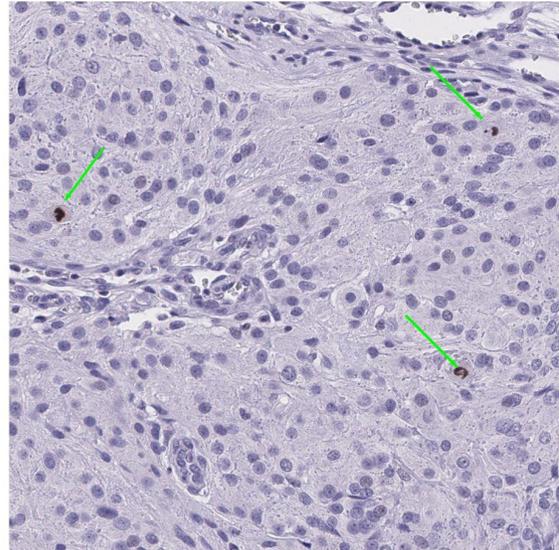


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

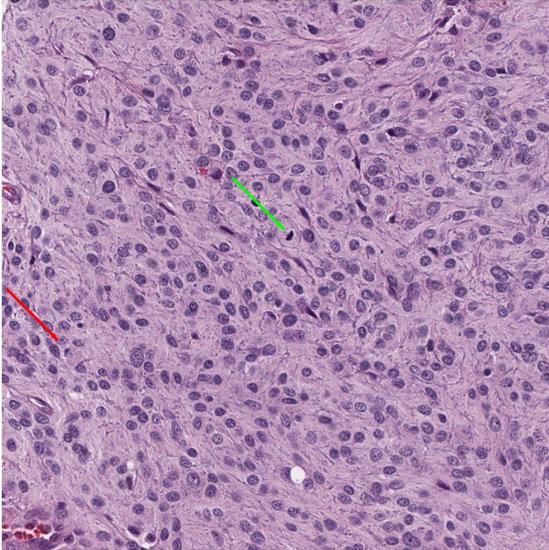


Phosphorylated Histone H3 (0.16mm²)

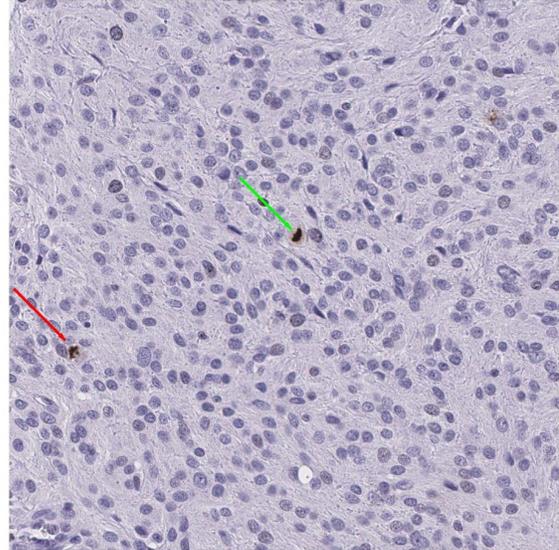


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

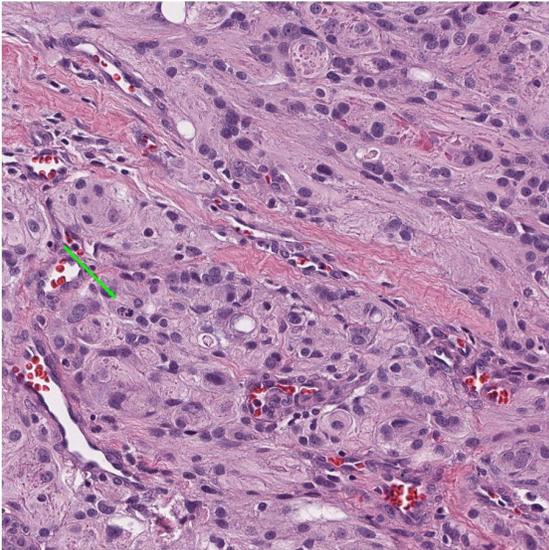


Phosphorylated Histone H3 (0.16mm²)

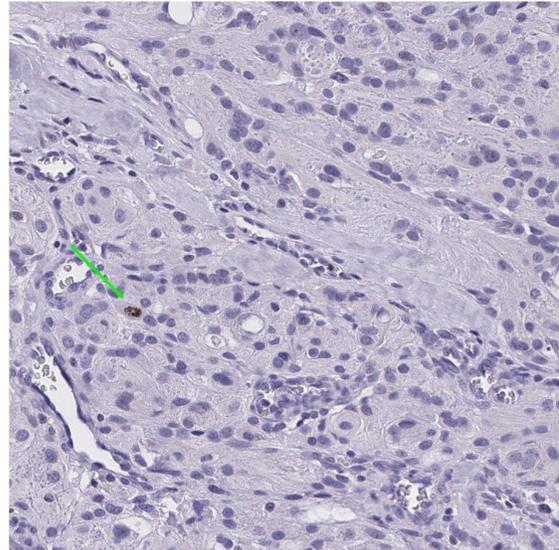


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

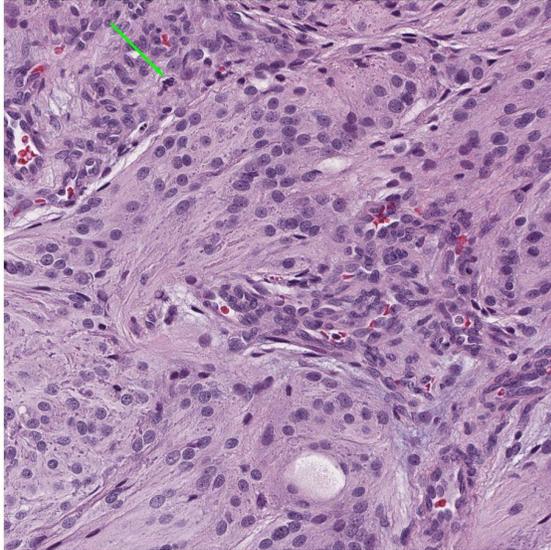


Phosphorylated Histone H3 (0.16mm²)

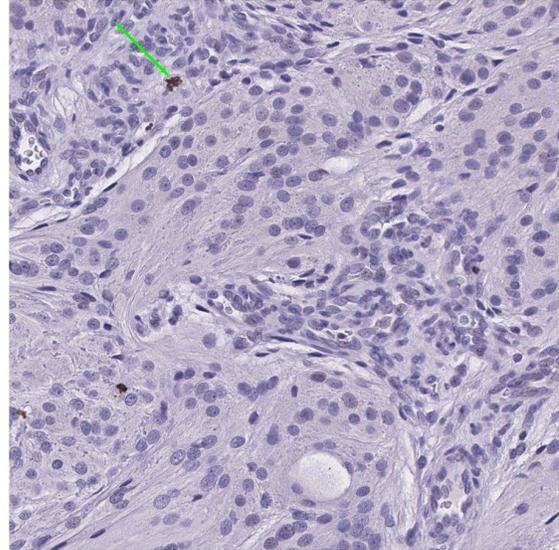


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

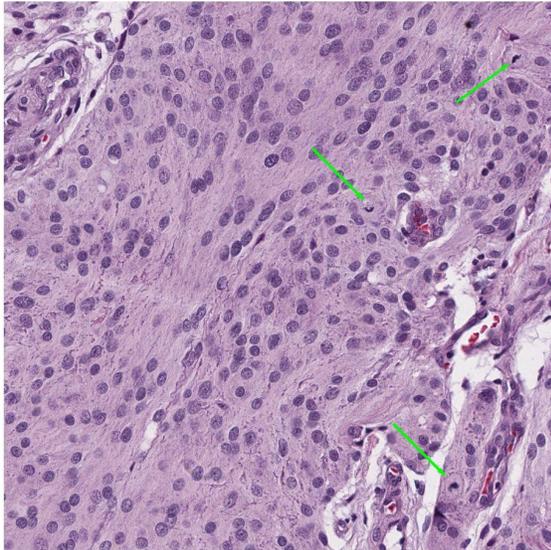


Phosphorylated Histone H3 (0.16mm²)

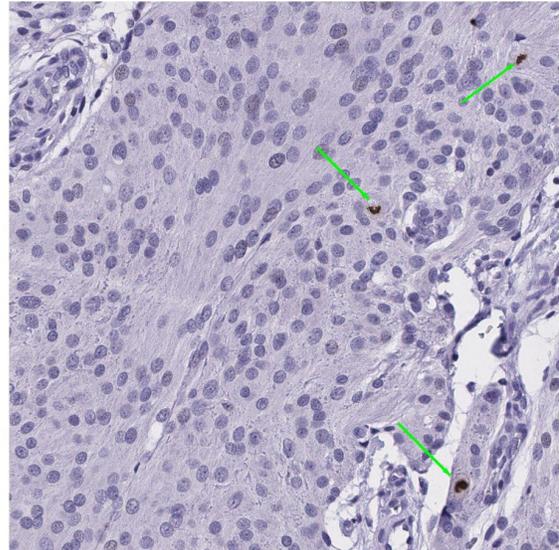


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

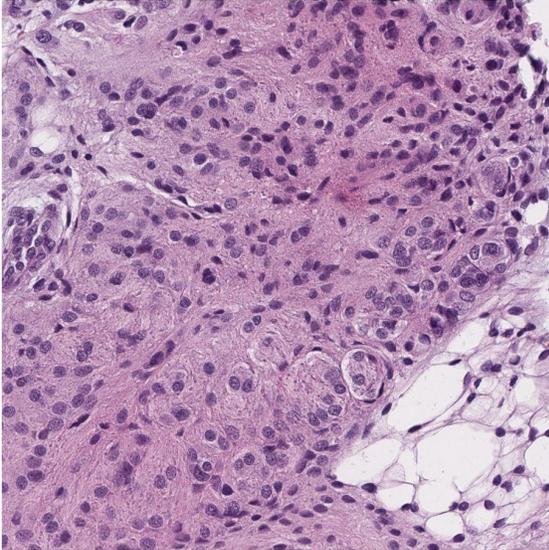


Phosphorylated Histone H3 (0.16mm²)

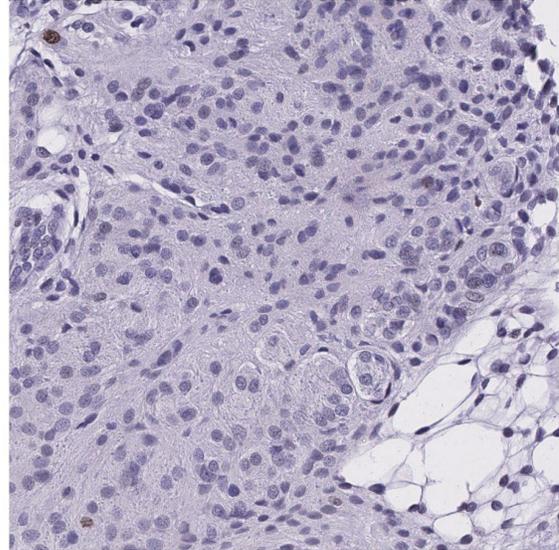


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

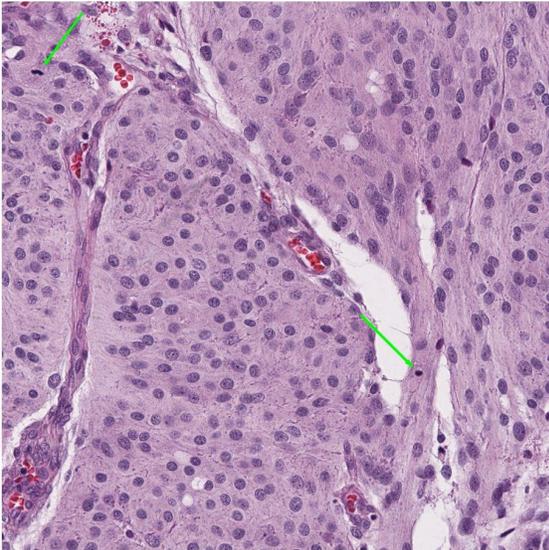


Phosphorylated Histone H3 (0.16mm²)

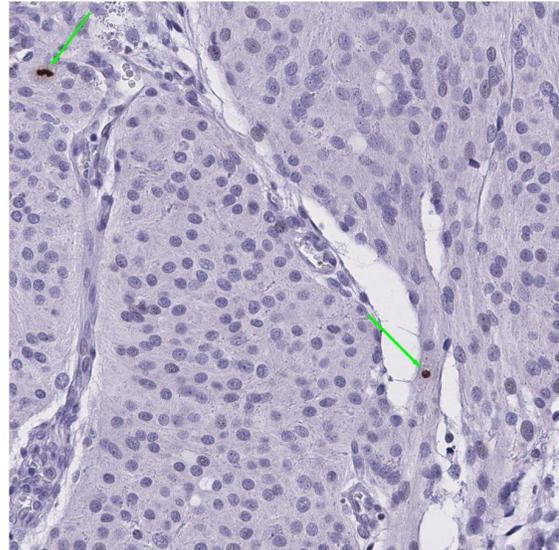


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

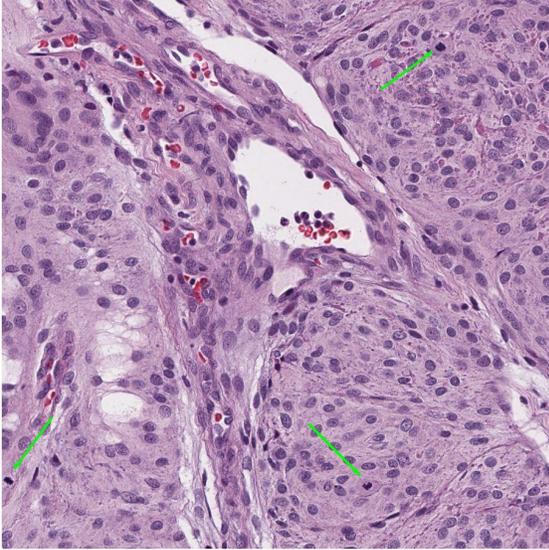


Phosphorylated Histone H3 (0.16mm²)

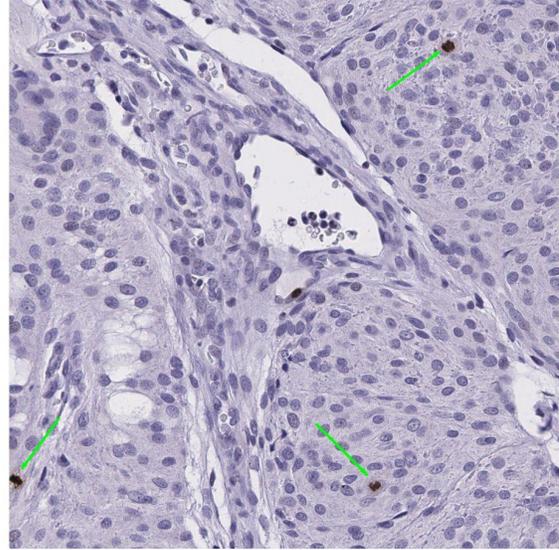


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

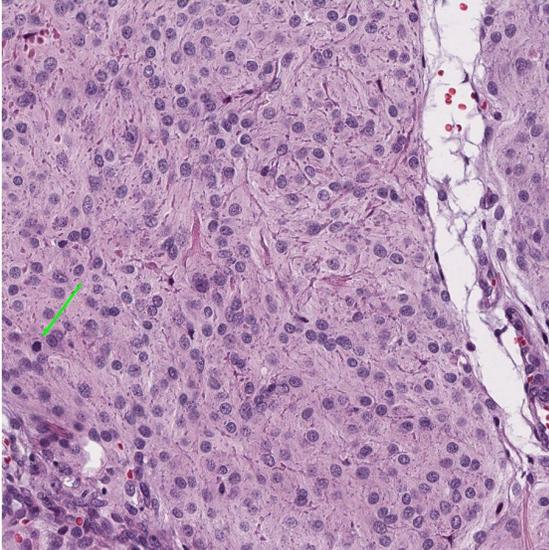


Phosphorylated Histone H3 (0.16mm²)

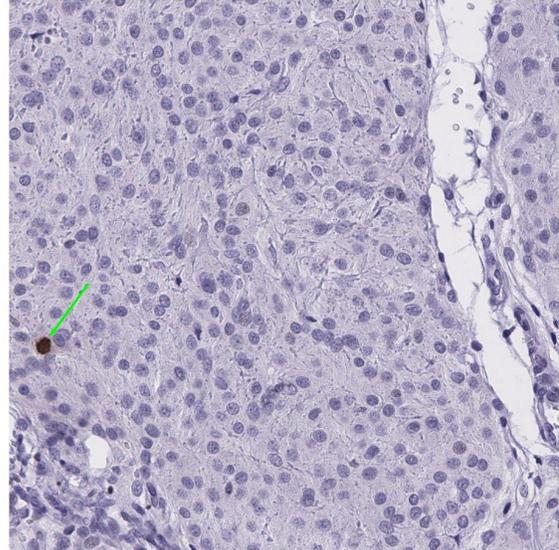


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

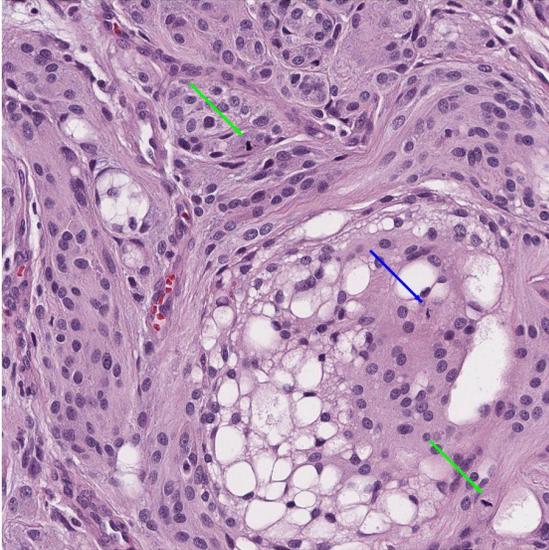


Phosphorylated Histone H3 (0.16mm²)

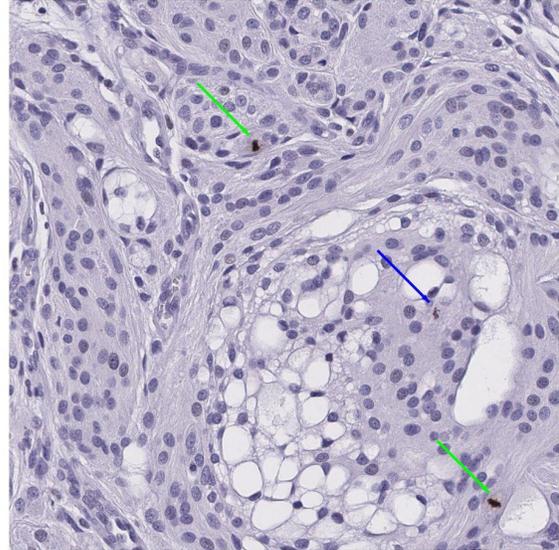


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

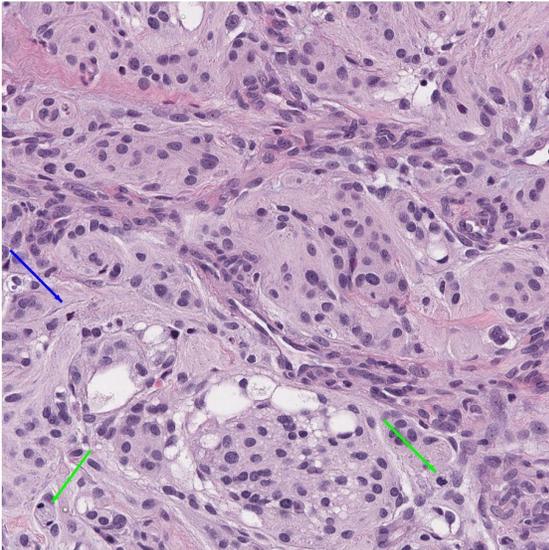


Phosphorylated Histone H3 (0.16mm²)

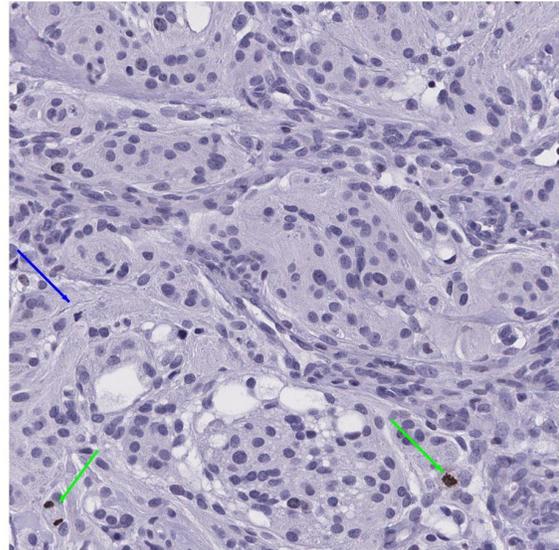


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

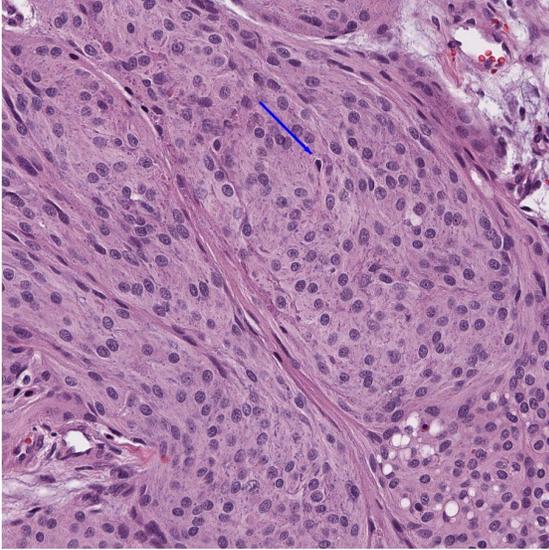


Phosphorylated Histone H3 (0.16mm²)

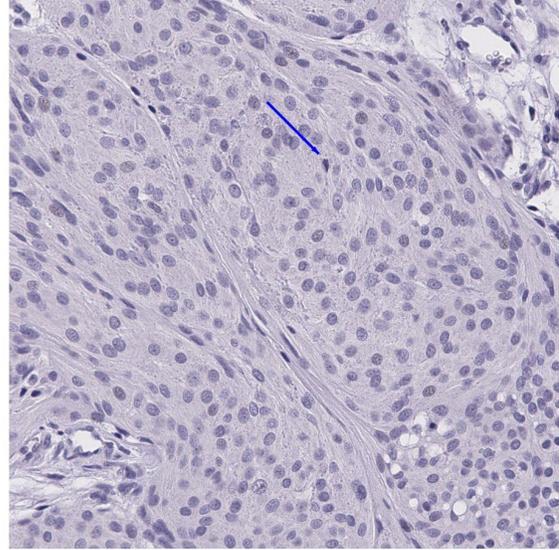


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

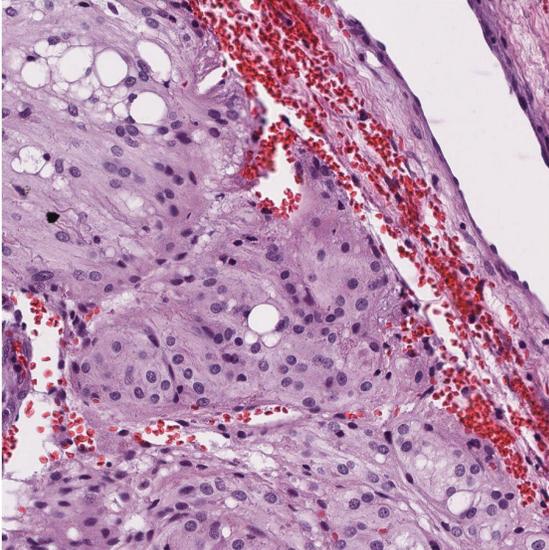


Phosphorylated Histone H3 (0.16mm²)

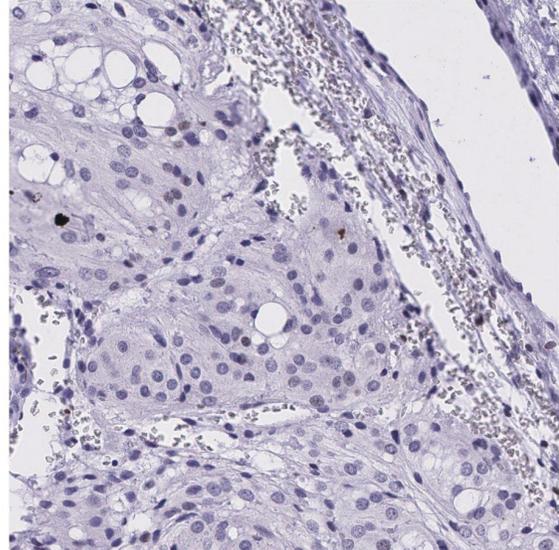


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

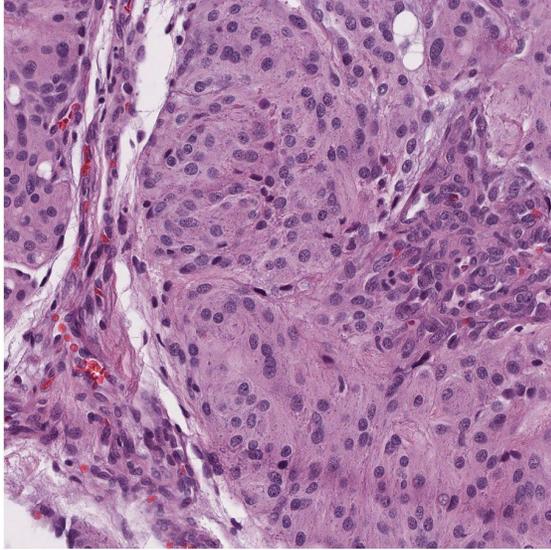


Phosphorylated Histone H3 (0.16mm²)

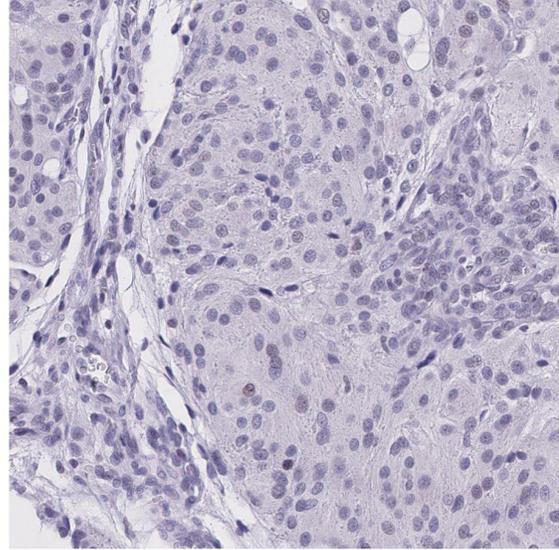


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

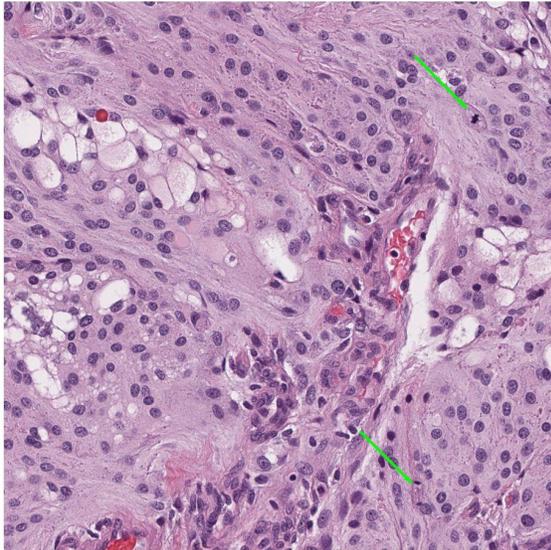


Phosphorylated Histone H3 (0.16mm²)

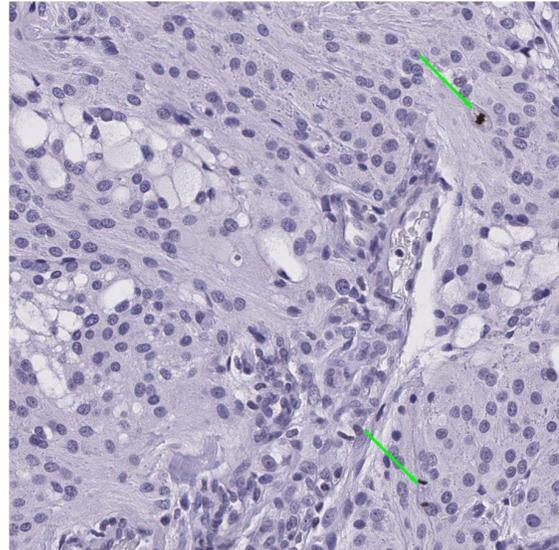


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

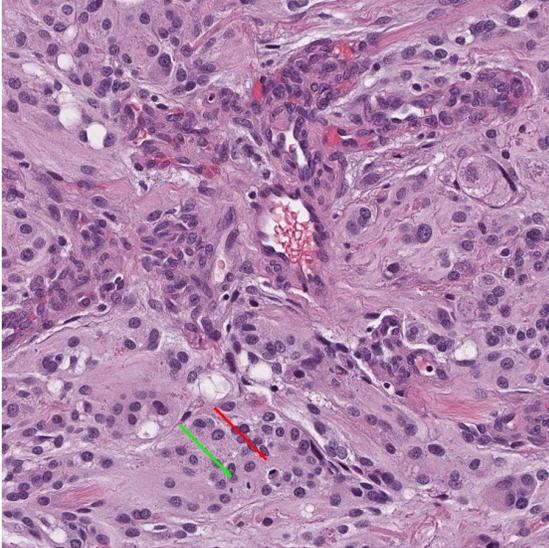


Phosphorylated Histone H3 (0.16mm²)

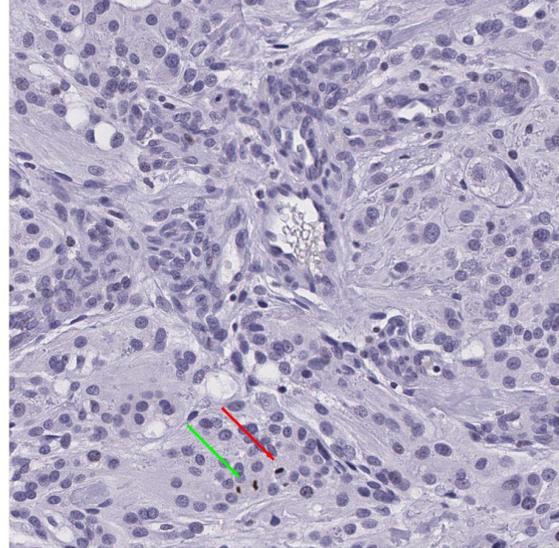


Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)

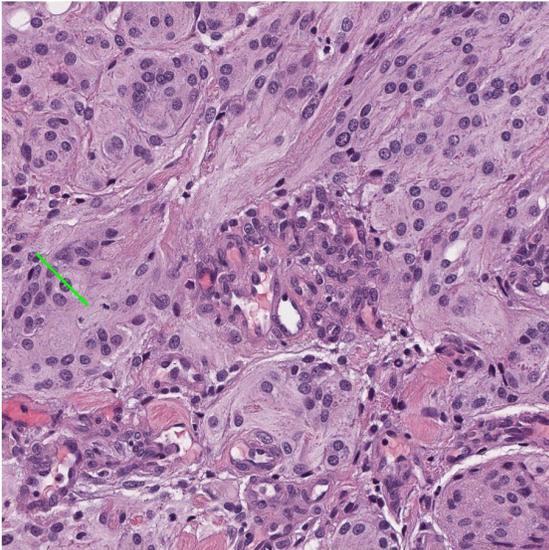


Phosphorylated Histone H3 (0.16mm²)



Green arrow: correct (True Positive)
Red arrow: missed mitosis (False Negative)
Blue arrow: wrong label (False Positive)

H&E (1HPF, 0.16mm²)



Phosphorylated Histone H3 (0.16mm²)

