

Prompt Engineering: From Jargon to Visual Descriptors

Baseline: Medical Jargon

(12.2% Accuracy)

Tumor:

- Infiltrating nests and cords of pleomorphic epithelial cells
- Large, hyperchromatic nuclei with irregular nuclear membranes
- A chaotic proliferation of cells with high N:C ratio

Stroma:

- Wavy pink collagen fibers with scattered spindle cells
- Eosinophilic and fibrillar connective tissue
- Paucicellular fibrous tissue with collagenous background

Lymphocyte:

- Small round cells with large, dark-staining nuclei
- Deeply basophilic round nuclei with condensed chromatin
- High nuclear-to-cytoplasmic ratio with round nucleus



Ours: LLM Few-Shot Visual

(44.4% Accuracy - 3.6× Better)

Tumor:

- Densely crowded dark purple cells packed together
- Large irregular purple nuclei in chaotic arrangement
- Overlapping dark purple nuclei forming a solid sheet

Stroma:

- Bright pink wavy fibers forming streaming patterns
- Light pink collagen with scattered thin elongated nuclei
- Wispy strands of light pink tissue with skinny nuclei

Lymphocyte:

- Many tiny dark blue dots scattered throughout
- Small uniform round purple circles densely clustered
- A solid field of very small dark purple circles

