HETA

aignostics

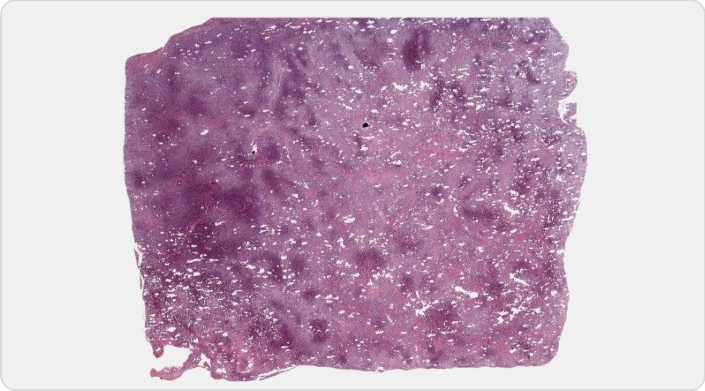
Comprehensive spatial profiling for H&E images

Last Updated: 17.11.2026

HETA is powered by Atlas, the foundation model co-developed by Aignostics and Mayo Clinic. It matches or exceeds the accuracy of expert pathologists.

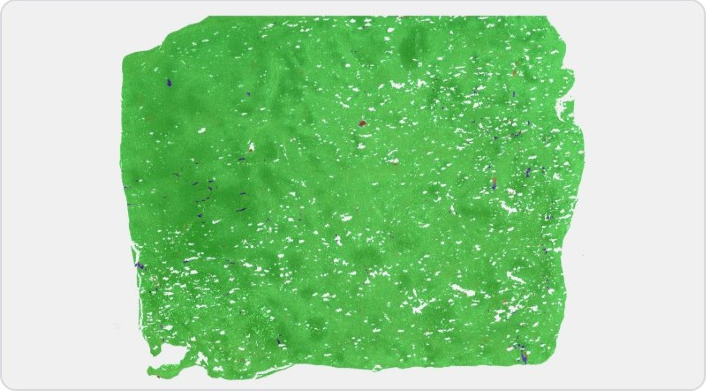
INDICATIONS COVERED — **10 AVAILABLE (AS OF SEPTEMBER 2026)**

Bladder · Breast · Colorectum · Head & Neck · Liver · Lung · Ovary · Pancreas · Prostate · Stomach



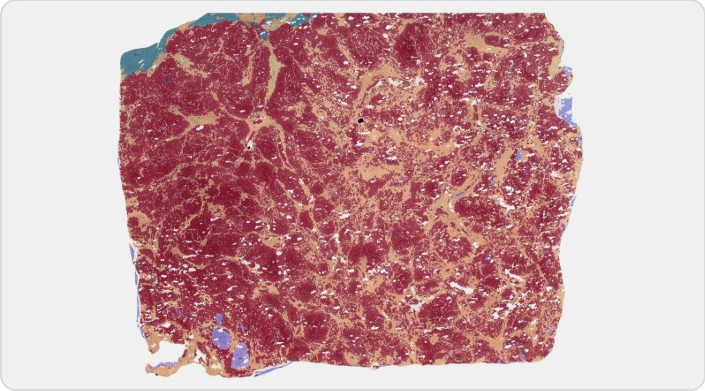
H&E · INPUT

A formalin-fixed, paraffin-embedded whole slide image.



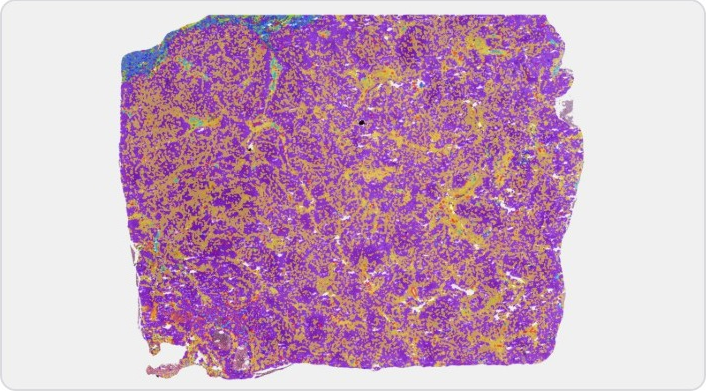
QUALITY CONTROL · 5 CATEGORIES

Valid · Out-of-focus · Artifact · Marker · No tissue



TISSUE SEGMENTATION · 9 TISSUE TYPES

Carcinoma · Stroma · Epithelium · Necrosis · Vessel · Blood · Nerve · Fat · Other



CELL CLASSIFICATION · 11 CELL CLASSES

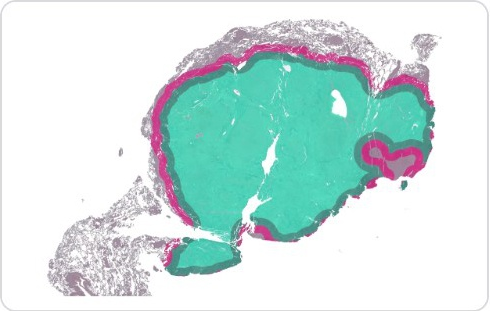
Carcinoma · Epithelial · Fibroblast · Lymphocyte · Plasma · Macrophage · Eosinophil · Neutrophil · Endothelial · Mitosis · Other

CONFIDENCE SCORES Show how certain the model is about each cell classification.

TUMOR ARCHITECTURE

Map the tumor core and invasive margin, then measure what pathologists grade by eye.

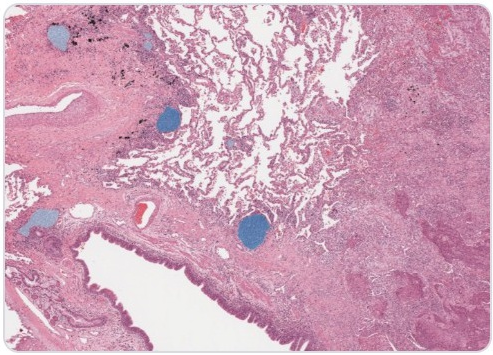
- Tumor zones: core, inner and outer margin, extratumoral
- Necrosis coverage
- Nuclear morphometry
- Tumor-stroma ratio
- Desmoplasia
- Mitotic activity and mitotic index



IMMUNE CONTEXTURE

Classify immune phenotypes, count TILs and mature TLS, and score lymphocyte density in the core and at the margin.

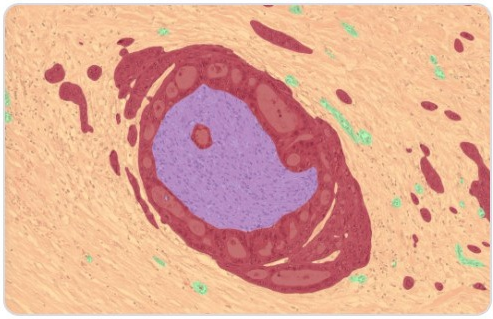
- Immune phenotypes: desert, excluded, inflamed
- Immunoscore proxy (core + margin)
- Mature TLS count, peri- vs. intratumoral
- Tumor-infiltrating lymphocytes (TILs)
- TLS detection and maturity



VASCULATURE AND NERVES

Measure vessel density and caliber, and segment nerves, for angiogenesis and invasion biology.

- Microvessel density, including vessel caliber
- Nerve regions



ADDITIONAL READOUTS

Beyond the headline features, every slide comes with metrics documented and benchmarked against TCGA.

- 20,000+ metrics per image
- Readout descriptions and TCGA references
- Cell, tissue, tumor zone, TLS, and neighborhood stats
- Structured for human and agent use

FEATURE	VALUE	UNIT
TUMOR_STROMA_RATIO	0.437218	ratio
TUMOR_CELLULARITY	0.352904	fraction
MITOTIC_INDEX	0.00731	fraction
TIL_DENSITY_STROMA	612.4	cells_per_mm2
MATURE_TLS_COUNT	4	count
VESSEL_AREA_FRACTION	0.0286	fraction

+ 20,000 more metrics per image

IMS INTEGRATIONS

HETA can be used directly within Proscia's Concentriq. More IMS integrations are on the way.

PROSCIA

Get Started with a Free Trial

All life sciences customers are eligible for a free trial. Client data is never used to train our models and is deleted after analysis.

↗ **aignostics.com/life-sciences/heta**

HETA is intended for research use only. Not for use in diagnostic procedures.