

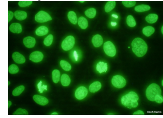
Nuclear with positive metaphase

Recognition of pattern generated by antinuclear antibody binding to Human epithelial type 2 (HEp-2) is based on the binding of auto-antibodies to the cell components at different stages of the cell cycle. The combination of the react seen at the interphase and the metaphase defines the pattern seen. The antibodies in the following section are positive in both the resting and mitotic stages.

ANA: Homogenous

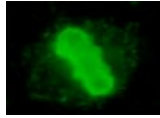
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HEp2 cells



[\(/Images/College-MDS-only/facilities/cis/cis-image-library/images/hep203268561/Mitotics/HomMitotic.jpg\)](#)

Mitotics

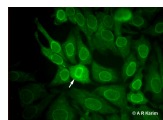


[\(/Images/College-MDS-only/facilities/cis/cis-image-library/images/hep203268561/Mitotics/HomMitotic.jpg\)](#)

During interphase smooth uniform staining of the nucleus is seen. Metaphase cells are also uniformly stained.

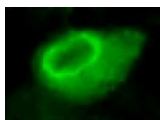
Antigen: dsDNA, histone
Clinical: SLE

ANA: Peripheral rim (thick, shaggy)



HEp2 cells

[\(/Images/College-MDS-only/facilities/cis/cis-image-library/images/0615583.jpg\)](#)



Mitotics

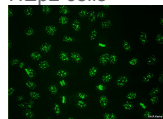
[\(/Images/College-MDS-only/facilities/cis/cis-image-library/Mitotics/Mitotic.jpg\)](#)

A thick uniform rim at the edge of nucleus that remains visible in the dividing cell (arrow).
Mitotics: Showing the presence of thick rim in the dividing cell.

Antigen: This rim pattern is often associated with dsDNA antibodies
Clinical: SLE

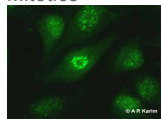
ANA: Centromere antibodies

HEp2 cells



[\(/Images/College-MDS-only/facilities/cis/cis-image-library/images/CM.jpg\)](#)

Mitotics



[\(/Images/College-MDS-only/facilities/cis/cis-image-library/images/0434259.jpg\)](#)

Antibodies are directed against **centromere** associated protein (CENP).
Mitotics: Unusual mitotic arrangement often not seen and corresponds to number of the chromosomes.

Antigen: CENP A (17kDa), B (80kDa), C (140kDa), D
Clinical: CREST syndrome