

Atlas Haematoxylin Harris

IVD For in -vitro diagnostic use only

 Store at Room Temperature

Intended For Use

Atlas Harris Hematoxylin Solutions are nuclear stains intended for use in Histology and Cytology. Hematoxylin, a common nuclear stain, is isolated from an extract of logwood (Haematoxylon campechianum).

INTRIDUCTION:

This is the standard method for the cytological examination of smears from the female reproductive tract. It produces a variegated colour staining that is helpful, for example, with hormonal studies and the detection of Candida and Trichomonas infestation (immunocytochemistry can be used to advantage, particularly for the latter organism) and partly because the type of picture produced results in less eye fatigue. This latter point is not unimportant when one considers the continuous microscopy involved in screening. Nuclei are popularly stained with Harris's Haematoxylin or Mayers Haematoxylin, which seems to give the most precise staining of exfoliated cells. There is considerable division of opinion as to the advisability of incorporating acetic acid in the solution; some workers feel that better results are given by using unacidified Harris's Haematoxylin.

Following Haematoxylin staining, the smears are stained with 'OG6'. This solution contains a yellow dye orange G, and stains keratin, for example, in smears of vulval carcinoma. The final stage is where the cytoplasm of the cells are stained with solutions variously termed 'EA36' or 'EA50'. Different staining results may be given by solutions from different commercial firms bearing the same EA number, so it is advisable to select the solutions giving the most acceptable results. These EA solutions contain eosin, light green and Bismarck brown. Intermediate (non-cornified) vaginal cells usually stain green or bluish-green and superficial (cornified) cells stain pink. The principle by which this differential staining occurs is not clear; neither is the role Bismarck brown, which increasingly is omitted from the staining solution. The pink or green staining is affected by various conditions, such as inflammation. The distinction between cornified and non-cornified cells is more reliably made using nuclear criteria, i.e. pyknotic nuclei for cornified cells and vesicular nuclei for non-cornified cells.

The staining schedule below is for an automatic staining machine; when staining by hand increase the staining times of the OG and EA stains by 50%. Different sources of stain will vary slightly and the staining times should be adjusted to suit the particular solutions.

MATERIAL PROVIDED

- Harris Haematoxylin

MATERIALS NEEDED BUT NOT PROVIDED

- Mayers Haematoxylin
- Papanicolaou Stain OG6
- Papanicolaou Stain EA50

Technique

The following is a 30 minute schedule for a staining machine:

- Treat with 95% alcohol for 1 minute.
- Treat with 70% alcohol for 2 minutes.
- Rinse with distilled water for 3 minutes.
- Treat with filtered Harris's Haematoxylin or Mayers Haematoxylin solution for 2.5 minutes.
- Rinse in tap water for 1 minute.
- Treat with 1% acid-alcohol for 3 seconds.
- Rinse in tap water for 2 minutes.
- Treat with ammoniated water (distilled water to which are added a few drops of concentrated ammonia) for 1 minute.
- Rinse in tap water for 3 minutes.
- Treat with 70% alcohol for 2 minutes.
- Treat with 95% alcohol for 2 minutes.
- Stain with OG 6 solution for 1.5 minutes.
- Treat with 95% alcohol for 2 minutes.
- Treat with 95% alcohol for 2 minutes.
- Stain with EA 50 solution for 2.5 minutes.
- Treat with 95% alcohol for 2 minutes.
- Treat with absolute alcohol for 1 minute.
- Treat with absolute alcohol for 1 minute.
- Treat with absolute alcohol for 1 minute.
- Treat with xylene for 2 minutes.
- Treat with xylene for 2 minutes.
- Treat with xylene and mount as desired.

Results

Nuclei	Blue
Superficial (cornified) cells	Pink
Intermediate (non-cornified) cells	Green
Candida (monilia)	Red
Trichomonads	Grey-green
Parabasal cell cytoplasm	Deep green
Red blood cells	Orange

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 REF	Product Reference No.	 IVD	For in-vitro diagnostic use.
	Caution.		Store at
	Read product insert before use.		Number of tests in the pack.
	Lot (batch) number.		Manufacturer.
	Expiry date.		Manufacturer telephone number.
	Manufacturer fax number.		