

## AG-URINE SEDI (Sternheimer-Malbin) STAIN IFU

### PRINCIPLE:

AG-URINE SEDI (Sternheimer – Malbin) stain is a commonly used supravital stain containing crystal- violet and safranin and is used for the examination of urinary deposits like ova to assist in diagnosis of giant kidney and bladder worms. Hence it is also called as urine sediment stain. Leukocytes, epithelial cells, and casts stain well with this stain. It is useful in the diagnosis of urinary tract infections and for the differentiation between pyelonephritis and cystitis.

### PACKAGE CONTENTS:

Description	Catalogue number	Quantity
AG –Urine Sedi (Sternheimer Malbin) Stain	AG/Stain/SM/23/01	50ml

### STORAGE &STABILITY:

- Store at room temperature(15-25°C). If stored properly, the stain is stable until the mentioned expiry date.

### MATERIAL REQUIRED:

- Inoculating loop or needle, swabs, collection containers.
- Glass slides, coverslips
- Urine Samples
- Centrifuging apparatus and accessories.
- Light microscope

### SPECIMEN COLLECTION AND HANDLING:

- Follow appropriate techniques for handling clinical specimens as per established guidelines.
- After use, contaminated materials must be sterilized by autoclaving before discarding.

### STAINING PROCEDURE:

- Obtain a freshly voided sample collected in a clean container. Refrigerated specimens can also be used. It is recommended to not use samples exceeding 4 hours at room temperature as it may result in new microbial growth.
- Centrifuge the sample tube 5 minutes at approximately 1500 rpm.
- Carefully remove the supernatant without disturbing the sediment.
- Add 1-2 drops of Sternheimer-Malbin stain to the tube.
- Flick the bottom of the tube several times with a finger to mix sediment with stain.
- Transfer one drop to a microscope slide and cover with coverslip.
- Observe on light microscope.

### INTREPRETATION OF RESULTS:

- Viable leukocytes stain purplish or violet colour with clear nuclear details. May have visible cytoplasmic granule movement (glitter cells).
- Dark staining neutrophils are characterized by translucent or granular cytoplasm and avid magenta or red staining of the segmented nucleus. These cells are older and no longer viable.
- Viable erythrocytes remain unstained, older or nonviable cells appear pale pink to magenta
- Epithelial cells stain the same as leukocytes, showing a vivid purplish or violet color.
- Hyaline cast protein matrix appears pale pink to purple
- Granular casts appear dark pink to magenta or purple
- Waxy casts appear pale pink to dark purple.

### PRECAUTIONS:

- For *In-vitro* Diagnostic and professional use only.
- Directions should be read and followed carefully.
- Do not use beyond the stated expiration dates.
- Safety precautions should be taken in handling, processing and discarding all clinical specimens.
- Dispose of all material in accordance with local regulations.

### SYMBOLS:

	Date of manufacture		Use-by-date		Do not use if package is damaged		Manufacturer
	Batch Code		Refer to the instructions		ISO		GMP



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