



# Instructions For Use

## CTK-IFU

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## Christmas Tree Stain Kit

### Description and Principle

The Christmas Tree Stain Kit is intended for cytological demonstration of spermatozoa cells in a sample. Spermatozoa cells are identified by the presence of a sperm head showing an acrosomal cap, or by the presence of an intact sperm cell showing head, midpiece, and tail.

Spermatozoa cells are differentially stained using Nuclear Fast Red and Picro-Indigocarmine. Sperm heads are differentially stained with Nuclear Fast Red staining the acrosome less intensely than nuclei. Sperm tails and epithelial membranes are stained by Picro-Indigocarmine.

### Expected Results

Spermatozoa Bodies:	Red, oval shaped, with pink cast
Acrosomal Cap:	Pink to Red
Midpiece and Tail (if present):	Green to Blue-Green
Nuclei:	Red
Background Material:	Blue to Green

### Kit Contents

1. Nuclear Fast Red (Enhanced Stability)
2. Picro-Indigocarmine Stain Solution

### Storage

- 18-25°C
- 18-25°C

### Suggested Controls *(not provided)*

Compare to a prepared semen slide

### Uses/Limitations

For Research Use Only.

Do not use if reagents become cloudy or precipitate.

Do not use past expiration date.

Use caution when handling reagents.

Intended for Cytological Applications

Non-Sterile

### Storage

Store at room temperature (18-25°C).

### Safety and Precautions

Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements.

### Procedure

1. Smear sample onto slide and fix by gentle heating.
2. Apply Nuclear Fast Red (Enhanced Stability) to the slide for 5-10 minutes.
3. Rinse slide with distilled water.
4. Apply Picro-Indigocarmine Stain Solution to the slide for 5-10 seconds.
5. Rinse slide with absolute alcohol.
5. Clear, and mount with a resinous mounting media.



Spermatozoa demonstrated with Christmas Tree Stain Kit.  
Viewed at 630x magnification.

### References

1. NIJ (National Institute of Justice). Protocol 2.05: Semen Stain Identification: Kernechtrot Picoindigocarmine Stain (KPIC) (Identification). In President's DNA Initiative: DNA Analysts Training Laboratory Training Manual, 2019.



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