



# Instructions For Use

## CEM-IFU

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## Eosinophil-Mast Cell Stain Kit

### Description and Principle

The Eosinophil-Mast Cell Stain Kit is intended for simultaneous visualization of eosinophils and mast cells.

Mast cells are rapidly stained bright blue by Astra Blue Solution. Vital New Red Solution stains eosinophils red and gives a pink background. Nuclei are stained by a rapid and progressive hematoxylin solution.

### Expected Results

Mast Cells:	Bright Blue
Eosinophils:	Red
Nuclei:	Blue

### Kit Contents

	Storage
1. Astra Blue Solution	18-25°C
2. Vital New Red Solution	18-25°C
3. Hematoxylin, Mayer's (Lillie's Mod.)	18-25°C

### Suggested Controls *(not provided)*

Any well fixed section cut 3-5µm thickness or cell smear

### Uses/Limitations

For In-Vitro Diagnostic use only.

Do not use if reagents become cloudy or precipitate

Do not use past expiration date.

Use caution when handling reagents.

Non-Sterile

Intended for FFPE sections cut at 5-10µm.

This procedure has not been optimized for frozen sections.

Frozen sections may require protocol modification.

### Storage

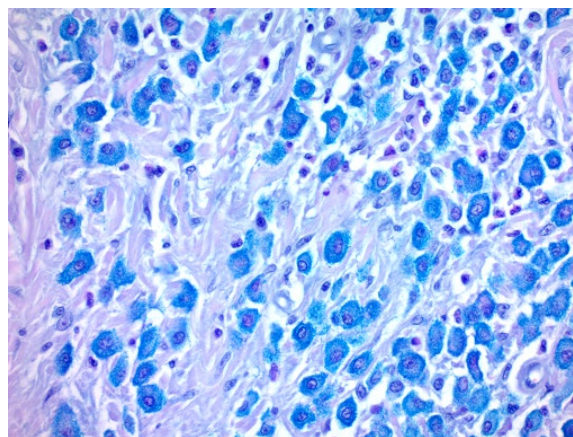
Store kit and all components at room temperature (18-25°C).

### 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. Deparaffinize sections if necessary and hydrate to distilled water.
2. Stain tissue section with Astra Blue Solution for 1-3 minutes.
3. Rinse quickly in 2 changes of distilled water.
4. Stain tissue section with Vital New Red Solution for 30 minutes with frequent agitation.
5. Rinse quickly in 2 changes of distilled water.
6. Counterstain in Hematoxylin, Mayer's (Lillie's Modification) for 15-30 seconds.
7. Rinse slide in running tap water for 2 minutes followed by distilled water.
8. Dehydrate quickly through 3 changes of absolute alcohol.
9. Clear, and mount in synthetic resin.




Dog mast cell tumor. Mast cell granules metachromatically stain bright blue.

### References

1. Zhao, J., Jia, S., Xie, P. et al. Knockdown of sodium channel Nax reduces dermatitis symptoms in rabbit skin. *Lab Invest* 100, 751–761 (2020). <https://doi.org/10.1038/s41374-020-0371-1>
2. Miyake, Shiro, Daisuke Irikura, and Tomomi Yamasaki. "Detection of Mast Cells Expressing c-Kit Using Antibody Covalently Bound to Gelatin Elongated from Surface of Immunosensor Based on Surface Plasmon Resonance." *Analytical Sciences* 35.7 (2019): 811-813.
3. Zhao J, Xie P, Galiano RD, Qi S, Mao R, Mustoe TA, Hong SJ. Imiquimod-induced skin inflammation is relieved by knockdown of sodium channel Nax. *Experimental dermatology*. 2019 Mar 23.
4. Yamada, Kiyoko, et al. "Topical Glucose Induces Claudin-1 and Filaggrin Expression in a Mouse Model of Atopic Dermatitis and in Keratinocyte Culture, Exerting Anti-inflammatory Effects by Repairing Skin Barrier Function." *Acta Dermatovenereologica* 98.1 (2018).
5. R.-S. Chang, S.-D. Wang, Y.-C. Wang, L.-J. Lin, S.-T. Kao, and J.-Y. Wang. "Xiao-Qing-Long-Tang shows preventive effect of asthma in an allergic asthma mouse model through neurotrophin regulation," *BMC Complementary and Alternative Medicine*, vol. 13, no. 1, p. 220, Sep. 2013.
6. S. Kao, "Soluble toll-like receptor 4 reversed attenuating effect of Chinese herbal Xiao-Qing-Long-Tang on allergen induced nerve growth factor and thymic stromal lymphopoietin," *Experimental and Therapeutic Medicine*, Sep. 2013.
7. Kermanizadeh, P., et al. A differential staining method for mast cells and eosinophils in murine intestine, liver and spleen. *Parasitology Today*, 1995, May; 11(5): pages 194-196.
8. Ball, M.T., Hay, J.: Simultaneous Demonstration of Eosinophils, Granulocytes, and Mast Cell in Tissue Sections. *Annals of Tropical Medicine and Parasitology*, 84: pages 195-196, 1990.
9. Strobel, S., et al. Human intestinal mucosal mast cells: evaluation of fixation and staining techniques. *Journal of Clinical Pathology*, 1981; 34: pages 851-858.

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