Diagnostic BioSystems

Instructions For Use

KT 022-IFU

Document #: DS-3015-D	Release Date: 07/08/2025

6616 Owens Drive, Pleasanton, CA 94588 U.S.A. - Tel. (925) 484-3350 - Fax (925) 484-3390 - www.dbiosys.com

Luxol Fast Blue Stain Kit

Description and Principle

The Luxol Fast Blue Stain Kit is designed for staining myelin/myelinated axons and Nissil substance on formalin fixed, paraffin-embedded tissue. This product is used for identifying the basic neuronal structure in brain or spinal cord sections.

Luxol fast blue is a alcohol soluble copper phthalocyanine dye that binds to lipoproteins found in the myelin sheath of the central nervous system. Tissue is initially overstained by luxol fast blue and dye is removed from gray-matter by differentiating solutions lithium carbonate and 70% alcohol. Cresyl echt violet is used to counterstain nuclei and nissl substance.

Expected Results

Myelinated Fibers:	Blue
Nissil Substance:	Violet
Nerve Cells:	Violet

Kit Contents	Volume	Storage
1. Cresyl Echt Violet Solution	125 ml	2-8° C
2. Luxol Fast Blue Solution	125 ml	15-30°C
3. Lithium Carbonate Solution (0.05%)	500 ml	15-30°C
4. Alcohol, Reagent (70%)	500 ml	15-30°C

Suggested Controls *(not provided)*

Cerebral Cortex, Spinal Cord

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

Mixed storage conditions. Store according to individual label instructions.

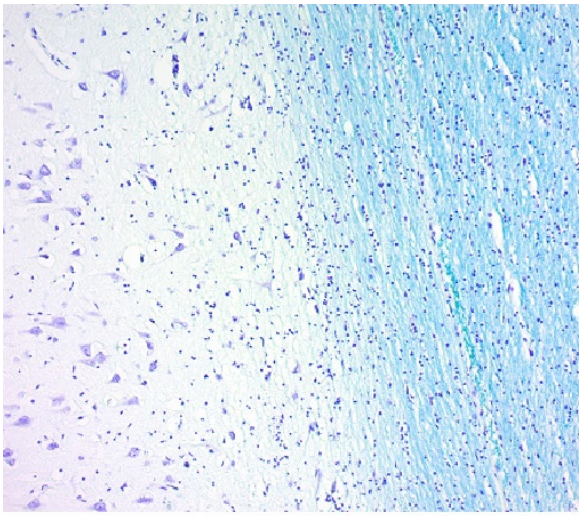
Safety and Precautions

Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements. If there is any serious incident that has occurred in relation to the device, please contact the manufacturer: Diagnostic BioSystems Technical Support at (925) 484-3350, extension 2 or techsupport@dbiosys.com. If required, please report to the Competent Authority of the Member State in which the user and/or patient is established.

Procedure

1. Deparaffinize sections if necessary and hydrate to distilled water.

2. Pour Luxol Fast Blue Solution into a staining jar and Incubate slide for 24 hours at room temperature or 2 hours at 60°C. Solution is alcoholic and will readily evaporate at smaller volumes.



White-matter and gray-matter of Human Brain stained with Luxol Fast Blue Stain Kit

3. Rinse thoroughly in distilled water.

4. Differentiate section by dipping in Lithium Carbonate Solution (0.05%) several times (up to 20 seconds).

5. If needed, continue differentiation by repeatedly dipping in Alcohol, Reagent (70%) until gray-matter is colorless and white-matter remains blue.

6. Rinse slide in 2 changes of distilled water.

7. Incubate slide in Cresyl Echt Violet (0.1%) for 2-5 minutes.

8. Rinse quickly in 1 change of distilled water.

9. Dehydrate quickly in 3 changes of absolute alcohol.

10. Clear as desired and mount in synthetic resin.

References

1. Sheenan, D.C., Hrapchak, B.B. Theory and Practice of Histotechnology, 2nd Edition. Battelle Press, Columbus, OH. Page 262-264. 1980
2. Kluver, H., Barrera, E.A. A Method for the combined staining of cells and fibers in the nervous system. Journal of Neuropathology and Experimental Neurology, 1953, 12: pages 400-403.

Diagnostic BioSystems
6616 Owens Drive
Pleasanton, CA, 94588
Tel: (925) 484 3350
www.dbiosys.com

CE IVD

CH REP
MedEnvoy Switzerland
Gotthardstrasse 28
6302 Zug
Switzerland

EC REP
MedEnvoy Global B.V.
Prinses Margrietplantsoen 33 - Suite 123
2595 AM The Hague
The Netherlands