Bio - Optica
Strumentazioni Scientifiche

ACID PHOSPHATASE Stain
30 – 30118LY

IVD In-vitro diagnostic medical device CE

CND Code: W01030708

working solution volume ..... 10 ml
procedure time ..... 1 hour and 26 minutes
storage temperature..... -20°C
complementary equipment..... not requested

Expected aim

Product for the preparation of cyto-histological samples for optical microscopy.

Application

Cryostatic sections of 8 micron of human skeletal muscle.
To show the enzymatic activity of acid phosphatase.
Acid phosphatase is in macrophage and lysosome, it identifies necrosis and regeneration.

Principle

Naphthol acid phosphate is hydrolyzed by acid phosphatases present in the tissue, and napthol derivatives are produced. The naphthol derivatives couple with an unstable diazonium salt, hexazonium pararosanilin, to produce a red azo dye to mark the sites of enzyme activity.

Method

1) It is recommend to let the reagents reach room temperature before starting the procedure
2) Section in Fixative for acid phosphatase (Bio-Optica 30-30120) 10 minutes
3) Dry in the air 10 minutes
4) Preparation of incubating solution:
   - add reagent B to reagent C. Shake 5-10 seconds and allow to stand for 1 minute.
   - put the content of tube A into the reagent D. Shake 5-10 seconds.
   - add B+C solution to A+D solution. Shake 5-10 seconds
5) Incubate sections at 37°C 45 minutes
6) Rinse in distilled water 10 minutes
7) Methyl green (Bio-Optica 30-30119) 5 minutes
8) Rinse in distilled water
9) Mount in aqueous mounting media.Alternatively dehydrate rapidly through alcohols to xylene and mount in resinous mounting media.

Results

Positive acid phosphatase enzymatic activity.....red
Background and nucleus .....green

Components

Components	CAS	CE	Index
REAGENT A.....1 x 9,2 ml			
Sodium acetate anhydrous	127-09-3	204-823-8	-
REAGENT B.....1 x 0,4 ml			
Pararosaniline-HCl solution	n/a	-	-
REAGENT C.....1 x 0,4 ml			
Sodium nitrite solution	7632-00-0	231-555-9	007-010-00-4
REAGENT D.....1 x 0,5 ml			
-Naphthol AS-BI phosphate	1919-91-1	217-645-0	-
-dimethylformamide	68-12-2	200-679-5	616-001-00-X

Warning and precaution

The product must be used exclusively by specialized technical operators.
The product is classified as hazardous.
Read with attention the information written on the label (dangerous symbols, risks and safety phrases).
Consult always the safety data sheet where the information about the risks of the preparation, precautionary measures during use, first aid and disposal are available.
Do not use if primary packaging is damaged.

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Storage

Store the preparation at -20°C. Keep the containers tightly closed.

Stability

When making aliquots of the product and freezing them at -20°C, Bio-Optica does not respond for the loss of activity resulting from this practice.
Product validity: 1 year.

Disposal

Hazardous preparation: observe all state and local environmental regulations regarding waste disposal.

References

- Grogg E, Pearse AGE. J Path Bact. 1952; 64:627 Pearse AGE. Histochemistry Theoretical and Applied 2nd ed. London; 1960.
- Barka, T. and Anderson, P.J., 1962. In: Theory and Practice of Histotechnology, Sheehan, D.C. and Hrapchak, B.B., 2nd Edition 1980; Battelle Memorial Institute, Columbus, OH 1987.

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