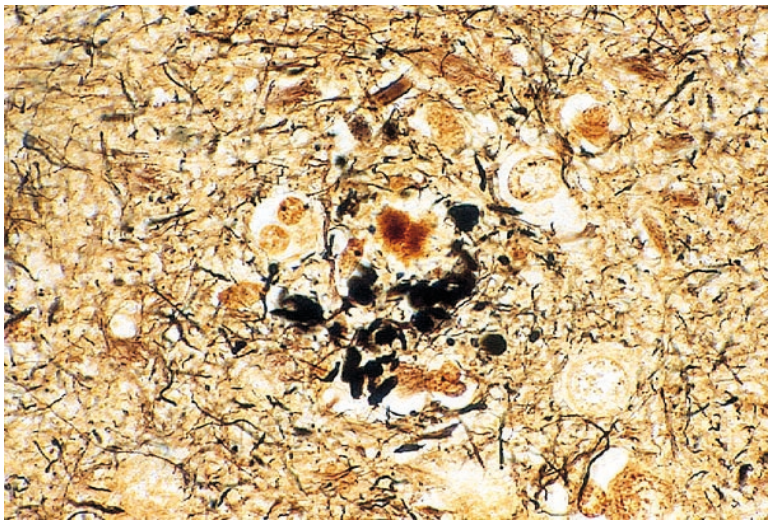
Bio - Optica
Improving Pathology

Data Sheet

CE

BIELSCHOWSKY



Cerebral cortex

CODE	DESCRIPTION	TESTS NUMBER
04-040805	Bielschowsky	100 test

IVD

In Vitro Diagnostic – medical device
EMDN: W01030799
IVD in **Class A**, Reg. UE 2017/746
Basic UDI: 080339762W01030799Y5
UDI-DI: 08033976230715

Manufacturer: Bio-Optica Milano S.p.A.

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Product for the preparation of cyto-histological samples for optical microscopy.
Recommended method to show neurofibrils, axons, dendrites and senile plaques in Alzheimer's disease.

PRINCIPLE

Impregnations methods are extensively used in neurohistology and there is not at present any way of selectively colouring axons and dendrites with dyes in routine preparations.
Silver impregnations methods are based on the following principle: the silver which is present in the ammoniacal solution in form of complex hydrosoluble oxide - $[Ag(NH_3)_2]_2O$ is reduced by some cellular components to black, stable and insoluble metallic state.
Bielschowsky method is one of the most reliable ammoniacal silver impregnation method and is particularly suited to diagnostic material.

WARNING

For good results, follow these rules:
- Always use excellent and chlorine-free distilled or deionized water.
- Use only perfectly clean glassware.
- Avoid deposit of dust on sections. Never touch solutions with metallic objects (tweezers etc.

METHOD

1) Bring the section to distilled water.
2) Introduce the slide into the incubation box, put on the section 10 drops of reagent A. Close the incubation box and incubate 15 minutes at 40°C.
3) Extract the slide from the incubation box and wash well in distilled water.
4) Put again the slide back into the incubation box and put on the section 10 drops of reagent B. Close the incubation box and incubate 20 minutes at 50/55°C. During the incubation time, prepare the reducing solution: Introduce into a Coplin jar 50 ml of distilled water and add 10 drops of reagent C, 8 drops of reagent D, 8 drops of reagent E and 8 drops of reagent F. Shake briefly with a glass stick.
5) Without wash drain the slide and then put them into the reducing solution: incubate 1-2 minutes.
6) Double washing in distilled water.
7) Put on the section 10 drops of reagent G: leave to act 3 minutes.
8) Double washing in distilled water.
9) Dehydrate through ascending alcohols: clear in xylene and mount.

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Technical details

Method specifications	Procedure time	45 minutes	
	Complementary equipment	50 ml Coplin jar, glass stick	
	Results	Neurofibrils, axons and dendrites:	Black
		Background:	Yellow – tobacco brown
Components	A) Silver nitrate solution	30 ml	
	B) Silver ammoniacal solution	30 ml	
	C) Ammonium hydroxy solution	2 x 30 ml	
	D) Formalin solution	30 ml	
	E) Nitric acid solution	30 ml	
	F) Citric acid solution	30 ml	
	G) Sodium thiosulphate solution	30 ml	
Storage	Storage	Store the preparation at 2-8°C. Keep the containers tightly closed	
	Storage temperature	2-8°C	
	Stability	After the first opening, the product is reusable until the expiry date, if correctly stored.	
	Validity	1 year	
Warning	Product classification	The product is intended for professional laboratory use for healthcare professionals. Carefully read the information on the label (danger symbols, risk and safety phrases) and always consult the safety data sheet. Do not use if the primary container is damaged. In the event of a serious accident, we recommended that you immediately inform Bio-Optica Milano S.p.A and the competent authorities.	
	Disposal	Hazardous preparation: observe all state and local environmental regulations regarding waste disposal.	

REVISION n°	REASON	REVISION DATE
001	Regulation adjustment UE 2017/746 - IVDR	16/05/2022