

# Monoclonal Antibody IOPath<sup>®</sup> CD1a

PN IM1590 - 6 mL - Liquid - Ready-to-use - Clone O10

For Research Use Only. Not for use in diagnostic procedures.

## SPECIFICITY

The antibody reacts with CD1a, a non-polymorphic MHC class I-related cell surface glycoprotein, expressed in association with beta 2 microglobulin (1). In normal tissues, the antibody reacts with cortical thymocytes, Langerhans' cells and interdigitating reticulum cells (2).

## REAGENT

IOPath<sup>®</sup> CD1a Monoclonal Antibody  
PN IM1590 - 6 mL - Liquid - Ready-to-use

<b>Clone</b>	O10
<b>Isotype</b>	IgG1, kappa mouse
<b>Immunogen</b>	Human thymocytes
<b>Hybridoma</b>	Myeloma NS1 X BP mouse spleen cells.
<b>Source</b>	Ascites fluid
<b>Purification</b>	Ion exchange or affinity chromatography

## REAGENT CONTENTS

This antibody is provided in 50 mM Tris-HCl, 150 mM NaCl, pH 7.4 with 1 mg/mL bovine serum albumin and 0.1 % sodium azide. The buffer contains a green dye.

## APPLICATION

Immunohisto and cytochemical staining of CD1a expressing cells on cytological samples (smears, imprints, cytopins), on frozen or on routinely fixed and paraffin-embedded tissue sections.

## STATEMENTS OF WARNING

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.

6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.

## STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze.

## REAGENT PREPARATION

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

## PROCEDURE

The antibody is ready for use on cytological samples, on frozen sections, and on routinely fixed (formalin, Bouin's, B5, Dubosq-Brazil, Zenker's) and paraffin-embedded tissue sections. Pre-heating of fixed, paraffin-embedded tissue sections is recommended\*.

## Tissue section heating procedure

### Heating solution

10 mM citrate buffer, pH6  
stock solution A: 0.1 M citric acid  
stock solution B: 0.1 sodium citrate  
Store at 2-8°C

working solution: 9 mL of A + 41 mL of B,  
make up to 500 mL with deionized water

### Procedure\*

**Option 1:** bring 3000 mL of citrate buffer heating solution to a boil in a pressure cooker, without the lid. Place the slides into the cooker, cover and lock the lid. Allow to boil under pressure for 4 minutes. Cool the unopened pressure cooker under tap water. Remove the slides and rinse in TBS or PBS (2).

This method is preferred since the heat treatment is independent of the number of slides treated. In addition, slides will not dry during the heating process.

**Option 2:** deparaffinized slides should be placed in a thermoresistant dish filled with citrate buffer. Run 3-5 cycles of 5 minutes each at 750 watts. Boiling is normally observed. Refill the dish with distilled water to replace evaporated water: sections should not dry. Remove the dish from the oven and allow to cool for 20 minutes at room temperature. Rinse slides in TBS or PBS buffer (1).

Note: to avoid bubble trapping between slides, it is recommended to leave at least 4 mm between slides.

\* Depending on the exact protocol followed, this step may require a license under US. patent 5, 244, 787.

## SELECTED RESEARCH REFERENCES

1. Boumsell, L., "Cluster report: CD1", 1989, In: Knapp W et al., eds. Leucocyte Typing IV, Oxford-New York-Tokyo: Oxford University Press, 251-254.
2. Krenacs, L., Tiszlavicz, L., Krenacs, T., and Boumsell, L., "Immunohistochemical detection of CD1a antigen in formalin-fixed and paraffin-embedded tissue sections with monoclonal antibody O10", 1993, J. Pathol., 171, 99-104.

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