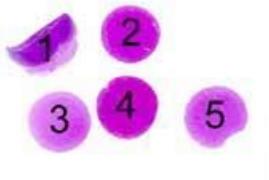
Assessment Run 11 2004

CD14

As an alternative to CD68, the participating laboratories could use CD14, which should be performed on the same material as for CD68.



The slide to be stained for CD14 comprised:
1. Appendix, 2. Liver, 3. Juvenile xanthogranuloma, 4. Myeloid leukaemia FAB M4,
5. Meningioma.

Criteria for assessing a CD14 staining as optimal included: A strong and distinct cytoplasmic and membranous staining of follicular dendritic cells (in the appendiceal germinal centres), hepatic Kupffer cells and macrophages in, e.g., the appendix, the meningioma and the juvenile xanthogranuloma as well as the myeloid leukaemia, whereas other cells, such as enterocytes and the neoplastic cells of the meningioma should be negative.

7 laboratories submitted stainings. At the assessment 6 achieved optimal staining (86 %) and 1 good (14 %). None were assessed as borderline or poor.

The following mAb was used:
clone 7 (Novocastra; n=7)

In the optimal protocols all used HIER (MWO, n=5; pressure cooker, n=1) with Tris-EDTA/EGTA pH 9 as the heating buffer. Clone 7 was used in the range of 1:50-150 depending on the total sensitivity of the protocols used.

In all protocols the the myeloid leukaemia and the juvenile xanthogranuloma were appropriately demonstrated. The reaction pattern was almost identical to that of CD68 (clones PG-M1) throughout all the stained specimens except for CD14 staining the follicular dendritic cells and hepatic sinusoidal endothelium.

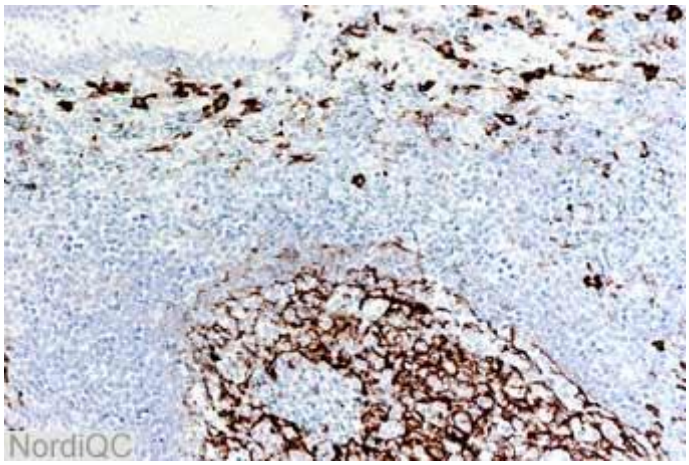


Fig. 1a
Optimal CD14 staining of the appendix. Intense staining is seen in the macrophages in lamina propria and in the germinal centre, and the follicular dendritic cells.

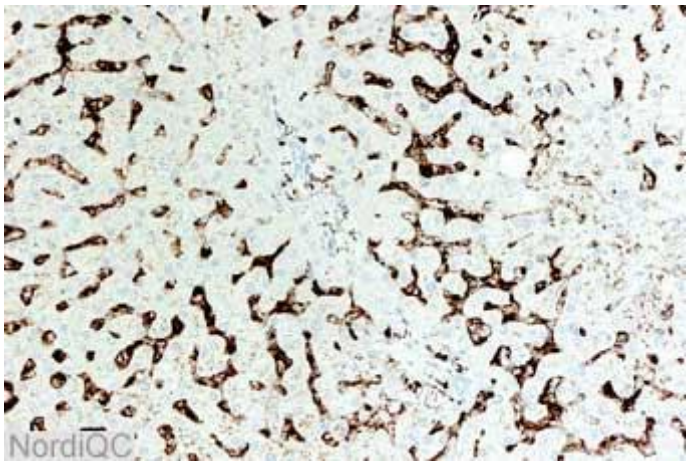


Fig. 1b
Optimal CD14 staining of the Liver. Intense staining is seen in the Kupffer cells and the hepatic sinusoidal endothelial cells.

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