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Monoclonal Antibody to Mouse Monocytes and a Macrophage Subset

Marker for Mouse Haematopoiesis associated Macrophages

Monoclonal antibody ER-HR3 recognizes the majority of blood monocytes and a subset of mature resident macrophages, especially those located in haematopoietic organs. ER-HR3 is a useful marker for the identification and localization of a distinct mature tissue macrophage subpopulation found in various organs. This marker is especially suitable for ontogenic studies because ER-HR3 positive macrophages are closely related to haematopoietic islands, especially at erythropoietic sites.

This antibody was produced serum-free, without fetal calf serum.

Product number: T-2012
Clone: ER-HR3
Lot: 07PO1404
TECHNICAL AND ANALYTICAL CHARACTERISTICS:

Host species, isotype:	Rat IgG2c
Quantity:	500µg
Format:	Affinity purified, lyophilized. Reconstitute by adding 0.5ml distilled water. This stock solution contains 1mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.05% Kathon as a preservative.
Stability:	Original vial: 1 year at 4° - 8°C Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing.
Applications:	Tested for immunohistochemistry (IHC); has been described to work in FACS. **Approximate working dilution for IHC:** Frozen sections: 2.5µg/ml (1:400) Paraffin sections: 25µg/ml (1:40); Proteinase K pretreatment for antigen retrieval is recommended. Optimal dilutions should be determined by the end user. Suggested positive control: Mouse spleen. Please see **www.bma.ch** for protocols and general information.
Immunogen:	Adherent bone marrow cells.
Antigen, epitope:	The antigen is found on mouse monocytes and a subset of macrophages. The epitope has not been further characterized.

Antigen distribution:	**Isolated cells:** The antigen is found on up to 70% of circulating monocytes; all other leukocytes are ER-HR 3 negative. It is also found on a subpopulation (about 30%) of bone marrow cells, mainly consisting of myeloid cells. **Tissue sections:** In the adult mouse, the antigen is found on distinct subpopulations of resident tissue macrophages in various organs. It is found on a subpopulation of the splenic red pulp macrophages, in the mesenteric lymphoid paracortex, interfollicular areas of Peyer's patches and bone marrow. Epidermal Langerhans cells also express the antigen, whereas macrophages in the connective tissue of the dermis and the gastrointestinal tract only scarcely express the ER-HR 3 related antigen. In the kidney, ER-HR 3 positive macrophages belong to the type 2 interstitial cells in the outer medulla which are negative with BM 8. Distinct ER-HR 3 positive macrophage subpopulations are found in various embryological organs where haematopoietic islands occur, and where they are closely associated with erythrocyte precursor cells.
Specificity:	**Mouse:** subpopulation of mature macrophages. **Other species:** not tested

Selected references

DeJong, J.P. et al. A monoclonal antibody (ER-HR3) against murine macrophages. II. Biochemical and functional aspects of the ER-HR3 antigen. Cell Tissue Res. 275: 577-585 (1994).

For *in vitro* research only. This product contains Kathon CG as a preservative.