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Monoclonal Antibody To Mouse Forssman Antigen Marker For A Glycosphingolipid

Monoclonal antibody FOM-1 detects the Forssman antigen. The Forssman antigen was named after the Swedish pathologist John F. Forssman and later identified as the GalNAc α (1-3)GalNAc β (1-R) disaccharide group. Forssman specificity was described in many animal species, plants and bacteria. In the mouse, Forssman antigen is a developmental and differentiation antigen. Expression of Forssman antigen in macrophages can be modulated by cytokines.

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| Product Number: | T-2113 (Lot 02PO0608) |
| Clone: | FOM-1 |
| Host species, isotype: | Rat IgM |
| Quantity: | >100 μ g |
| Format: | Partially purified by dialysis and gel filtration, liquid This stock solution contains >500 μ g/ml IgM, phosphate buffered saline pH 7.2 (PBS) and 0.09% NaN ₃ as a preservative. |
| Stability: | Original vial: 1 year at 4° - 8°C Avoid repeated freezing and thawing. |
| Applications: | Tested for immunohistochemistry (IHC) Approximate working dilution for IHC: Frozen sections: 0.5 μ g/ml (1:1000) Paraffin sections: 5 μ g/ml (1:100); pretreatment not necessary. Optimal dilutions should be determined by the end user. Suggested positive control: Mouse spleen. Please see www.bma.ch for protocols and general information. |
| Antigen, epitope: | The FOM-1 antigen is a glycosphingolipid (FO GSL) differentiation antigen. |

Antigen distribution:

Tissue sections: The antigen is found on macrophages in the red pulp of the spleen and the medulla of inguinal and axial lymph nodes. It is absent on monocytes and granulocytes. Reticular cells in T-cell areas of spleen and lymph nodes also stain positively. In response to inflammatory stimuli, a subpopulation of FOM-1-positive macrophages appear in the peritoneal cavity. Other macrophages in lymphoid and non lymphoid organs (e.g. alveolar macrophages and Kupffer cells) are negative. These results indicate that infiltrating macrophages carry the antigen.

Specificity:

Mouse: macrophages.

Other species: sheep erythrocytes (SRBCs), other unknown

Selected references

Bethke, U., Kneip, B., Muehlradt, P.F.: Forssman Glycolipid, an antigenic marker for a major subpopulation of macrophages from murine spleen and peripheral lymph nodes. *J. Immunol.* 138, 4329-4335 (1987).

Muehlradt, P.F., Monner, D.A., Dijkstra, C.D.: Immunohistochemical Localization of Forssman Glycosphingolipid-Positive Macrophages and Reticular Cells in Murine Lymphoid Tissue. *Immunobiol.* 179, 259 - 270 (1989).

Kleist, R., Schmitt, E., Westermann, J., Muehlradt, P.F.: Modulation of Forssman Glycosphingolipid Expression by Murine Macrophages: Coinduction with Class II MHC antigen by the Lymphokines IL4 and IL6. *Immunobiol.* 180, 405 - 418 (1990).

Monner, D., Muehlradt, P.F.: Surface Expression of Forssman Glycosphingolipid Antigen on Murine Bone-Marrow-Derived Macrophages is Subject to both Temporal and Population-Specific regulation and is Modulated by IL-4 and IL-6. *Immunobiol.* 188, 82-98 (1993).

For in vitro research only. Caution: this product contains sodium azide, a poisonous and hazardous substance.