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MANNOSE RECEPTOR, Clone 15-2
Monoclonal Antibody

Catalog No: MON2073

Quantity: 100 µg

Specificity:
The Mannose Receptor (MR), a member of the vertebrate C-type lectin family, is a pattern recognition receptor that is involved in both innate and adaptive immunity. The 180 kDa transmembrane protein consists of 5 domains: an amino-terminal cysteine-rich region, a fibronectin type II repeat, a series of eight tandem lectin-like carbohydrate recognition domains (responsible for the recognition of mannose and fucose), a transmembrane domain, and an intracellular carboxy-terminal tail.
The structure is shared by the family of multi lectin mannose receptors: the phospholipase A2-receptor, DEC 205 and the novel C-type lectin receptor (mannose receptor X). The MR recognizes a wide range of gram positive and gram negative bacteria, yeasts, parasites and mycobacteria. The MR has also been shown to bind and internalize tissue-type plasminogen activator.
MR's are present on monocytes and dendritic cells (DC) and are presumed to play a role in innate and adaptive immunity, the latter via processing by DC. The expression of MR as observed in immunohistology is present on tissue macrophages, dendritic cells, a subpopulation of endothelial cells, Kupffer cells and sperm cells. The expression of MR on monocytes increases during culture and can be enhanced by cytokines as IFN-γ. Labeling of MR expressing monocytes/macrophages increases at 37°C with prolonged incubation time probably due to internalization of the MR-antibody-complex. The antibody prevents binding of glycoproteins including t-PA to MR.
Detection of the MR with anti-MR monoclonal antibody can substitute staining for mannose containing probes as labeled mannosylated BSA, a technique which is more cumbersome and less specific.

Immunoglobulin type:
Mouse IgG1

Use:
The antibody can be used for histology on frozen sections, flow cytometry, Western blot and ligand-receptor intervention studies.

Presentation:
1 ml (100 µg/ml) purified antibody solution in PBS containing 0.1% BSA and 0.02% sodium azide.

Literature:
1. Barrett-Bergshoeff M., *Thromb Haemostas*, 1997; 77: 718-724.
2. Noorman F., *J Leukocyte Biol*, 1997; 61: 63-72.
3. Noorman F., *Hepatology*, 1997; 26(5): 1303-1310.

Also available:
MON 2073B 0.5 ml (100 µg/ml) biotinylated purified antibody solution in PBS containing 0.1% BSA and sodium azide.

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