

Mouse anti-Mannose Receptor, clone 15-2 (Monoclonal)

Clone no. 15-2

MONOSAN

Product name Mouse anti-Mannose Receptor, clone 15-2 (Monoclonal)

Host Mouse

Applications IHC-fr,FC,FUNC,WB

Species reactivity human

Conjugate -

Immunogen Unknown or proprietary to MONOSAN and/or its suppliers

Isotype IgG1

Clonality Monoclonal

Clone number 15-2

Size 1 ml

Concentration 100 ug/ ml

Format -

Storage buffer PBS with 0.1% BSA and 0.02% sodium azide

Storage until expiry date 2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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**Additional info**

The monoclonal antibody 15-2 recognizes the mannose receptor (MR), also known as CD206, a member of the vertebrate C-type lectin family. The mannose receptor, is a pattern recognition receptor that is involved in both innate and adaptive immunity. The 175 kDa single-pass type I transmembrane receptor 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 binds high-mannose structures on- 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-gamma. Labeling of MR expressing monocytes/macrophages increases with prolonged incubation time probably due to internalization of the MR-antibody-complex. The monoclonal antibody 15-2 prevents binding of glycoproteins including t-PA to MR.  
Detection of the MR with anti-MR monoclonal antibody 15-2 can substitute staining for mannose containing probes as labeled mannosylated BSA, a technique which is more cumbersome and less specific.

**References**

1. Barret-Bergheff; M et al. Thromb Haemostas 1997; 77: 718
2. Noorman, F et al J Leukocyte Biol 1997, 61: 63
3. Noorman; F et al. Hepatology 1997; 26: 1303
4. Tailleux L et al. J Exp Med 2003; 197: 121
5. Pressice P et al. Mol Immunol 2008; 45: 1136

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