Product datasheet MON2073

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 proprietery 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

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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