



Recombinant Human Macrophage mannose receptor 1 (MRC1), partial

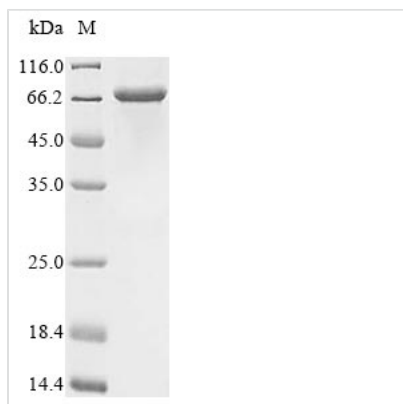
Product Code	CSB-EP014783HUa0
Relevance	Mediates the endocytosis of glycoproteins by macrophages. Binds both sulfated and non-sulfated polysaccharide chains. (Microbial infection) Acts as phagocytic receptor for bacteria, fungi and other pathogens. Acts as a receptor for Dengue virus envelope protein E. Interacts with hepatitis B virus envelope protein
Abbreviation	Recombinant Human MRC1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P22897
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	RTSLCFKLYAKGKHEKKTWFESRDFCRALGGDLASINNKEEQQTIWRLITASG SYHKLFWLGLTYGSPSEGFTWSDGSPVSYENWAYGEPNNYQNVEYCGELKG DPTMSWNDINCEHLNNWICQIQKGQTPKPEPTPAPQDNPPVTEDGWVIYKDY QYYFSKEKETMDNARAFCKRNFGDLVSIQSESEKKFLWKYVNRNDAQSAYFI GLLISLDKKFAWMDGSKVDYVSWATGEPNFANEDENCVTMYSNSGFWNDIN CGYPNAFICQRHNSSINATTVMPTMPSVPSGCKEGWNFYSNKCFKIFGMEE ERKNWQEARKACIGFGGNLVSQNEKEQAFLTYHMKDSTFSAWTGLNDVNSE HTFLWTDGRGVHYTNWGKGYPGGRRSSLSYEDADCVVIGGASNEAGKWMD DTCDSKRGYICQTRSDPSLTNPPATIQTDFGVKYGKSSYSLMRQKFQWHEAE TYCKLHNSLIASILDYPYNAFAWLQMETSNERVWIALNSNLTDNQYTWTDKWR VRYTNWAADEPKLKSACVYLDLDGYWKTAHCNESFYFLCK
Research Area	Immunology
Source	E.coli
Target Names	MRC1
Protein Names	C-type lectin domain family 13 member D C-type lectin domain family 13 member D-like Human mannose receptor Short name:hMR Macrophage mannose receptor 1-like protein 1 CD_antigen: CD206 CLEC13D, CLEC13DL, MRC1L1
Expression Region	655-1213aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged



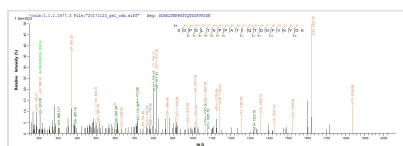
Mol. Weight 69.9 kDa

Protein Length Partial

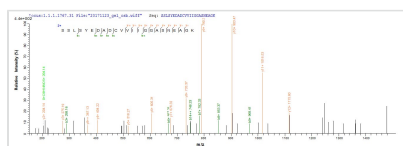
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP014783HUa0 could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) MRC1.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP014783HUa0 could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) MRC1.

Description

The recombinant human MRC1 is expressed in E.coli. It carries an N-terminal 6xHis-tag. Its expression region corresponds to the 655-1213aa of the human MRC1. Its purity exceeds 85% as measured by SDS-PAGE. The SDS-PAGE experiments showed MRC1's apparent molecular weight to be 66-80 kDa. It is suitable for the MRC1-related immunology research.

Human MRC1, also called CD206, is a type I integral membrane glycoprotein predominantly expressed on macrophages and dendritic cells. It plays a crucial role in the immune response by recognizing and binding to various carbohydrate structures, particularly those containing mannose, fucose, or N-acetylglucosamine.

MRC1 is primarily involved in the endocytosis and phagocytosis of pathogens, such as fungi and bacteria, which display high densities of mannose on their surfaces [1][2]. It also plays a role in clearing glycoproteins and other macromolecules from the extracellular environment, contributing to homeostasis and immune regulation [3][4].

References:

[1] G. Gaziri, L. Gaziri, R. Kikuchi, J. Scanavacca, & I. Felipe, Phagocytosis of candida albicans by concanavalin-a activated peritoneal macrophages, Medical Mycology, vol. 37, no. 3, p. 195-200, 2008.



<https://doi.org/10.1111/j.1365-280x.1999.00220.x>

[2] I. Porcaro, M. Vidal, S. Jouvert, P. Stahl, & J. Gadrey, Mannose receptor contribution to candida albicans phagocytosis by murine e-clone j774 macrophages, Journal of Leukocyte Biology, vol. 74, no. 2, p. 206-215, 2003. <https://doi.org/10.1189/jlb.1202608>

[3] S. Swain, S. Lee, M. Nussenzweig, & A. Harmsen, Absence of the macrophage mannose receptor in mice does not increase susceptibility to pneumocystis carinii infection in vivo, Infection and Immunity, vol. 71, no. 11, p. 6213-6221, 2003. <https://doi.org/10.1128/iai.71.11.6213-6221.2003>

[4] E. Song, M. Manganiello, Y. Chow, B. Ghosn, A. Convertine, P. Stayton et al., In vivo targeting of alveolar macrophages via raft-based glycopolymers, Biomaterials, vol. 33, no. 28, p. 6889-6897, 2012. <https://doi.org/10.1016/j.biomaterials.2012.06.025>

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.