Recombinant Rat MBL1 Protein (Fc Tag)

Catalog Number: PKSR030286

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description		
Species	Rat	
Source	HEK293 Cells-derived Rat MBL1 protein Met1-Ala238, with an C-terminal hFc	
Calculated MW	50.5 kDa	
Observed MW	56 kDa	
Accession	P19999	
Bio-activity	Not validated for activity	
Properties		
Purity	> 85 % as determined by reducing SDS-PAGE.	
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.	
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80	
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of	
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.	
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
Formulation	Lyophilized from sterile PBS, pH 7.4	
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants	
	before lyophilization.	
	Please refer to the specific buffer information in the printed manual.	
Reconstitution	Please refer to the printed manual for detailed information.	



KDa	М
116	-
66.2	
45.0	-
35.0	-
25.0	-
18.4 14.4	=

> 85 % as determined by reducing SDS-PAGE.

Background

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Mannose-binding lectin (MBL), also named mannose or mannan-binding protein (MBP), is a C-type lectin which participates in the innate immune system as an activator of the complement system and as opsonin after binding to certain carbohydrate structures on microorganisms and pathogens. Its function appears to be pattern recognition in the first line of defense in the pre-immune host. MBL recognizes carbohydrate patterns found on the surface of a large number of pathogenic micro-organisms including bacteria, viruses, protozoa and fungi. Binding of MBL to a micro-organism results in activation of the lectin pathway of the complement system. Two forms of MBL, MBL-A and MBL-C, were characterized in rodents, rabbits, bovine and rhesus monkeys, whereas only one form was identified in humans, chimpanzees and chickens. The two forms are encoded by two distinct genes named MBL1 and MBL2, which have been identified in many species including the pig. The MBL1 and MBL2 genes encode mannan-binding lectins (MBL) A and C, respectively, that are collagenous lectins (collectins) produced mainly by the liver. The MBL1 gene encodes MBL-A, which has bacteria-binding properties in pigs and rodents but is mutated to a pseudogene in humans and chimpanzees. Deficiency of MBL is probably the most common human immunodeficiency and is associated with an increased risk of mucosally acquired infections including meningococcal disease. MBL could modify disease susceptibility by modulating macrophage interactions with mucosal organisms at the site of initial acquisition.