



Recombinant Protein Technical Manual

Recombinant Rat MBL1 Protein (Fc Tag)

RPES5178

Product Data:

Product SKU: RPES5178

Size: 50µg

Species: Rat

Expression host: HEK293 Cells

Uniprot: P19999

Protein Information:

Molecular Mass: 50.5 kDa

AP Molecular Mass: 56 kDa

Tag: C-Fc

Bio-activity:

Purity: > 85 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method

Storage: 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°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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: MBL1

Immunogen Information:

Sequence: Met1-Ala238

Background:

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.