



# Recombinant Protein Technical Manual

## Recombinant Human MBL2/MBL/COLEC1 Protein

RPES4326

### Product Data:

**Product SKU:** RPES4326

**Size:** 50µg

**Species:** Human

**Expression host:** CHO Stable Cells

**Uniprot:** NP\_000233.1

### Protein Information:

**Molecular Mass:** 24 kDa

**AP Molecular Mass:** 31 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg 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:** Mannose-Binding Protein C; MBP-C; Collectin; MBP1; Mannan-Binding Protein; Mannose-Binding Lectin; MBL2; MBL;COLEC1;HSMBPC;MBL;MBL2D;MBP;MBP1;MBPD

## Immunogen Information:

**Sequence:** Met 1-Ile 248

## Background:

MBL (mannose-binding lectin) is primarily a liver-derived collagen-like serum protein, which binds sugar structures on micro-organisms and on dying host cells and is one of the four known mediators that initiate activation of the complement system via the lectin pathway. MBL and the ficolins (Ficolin, Ficolin-2 and Ficolin-3) are soluble collagen-like proteins that are involved in innate immune defence. They bind sugar structures or acetylated compounds present on microorganisms and on dying host cells and they initiate activation of the lectin complement pathway in varying degrees. MBL2 encodes the mannose-binding lectin, which is a key player in the innate immune system and has recently been found to play a role in development of type 1 diabetes and gestational diabetes mellitus. Common variant alleles situated both in promoter and structural regions of the MBL2 gene influence the stability and the serum concentration of the protein. Several polymorphisms in the promoter and structural regions of MBL2 adversely affect the plasma concentration and oligomeric state of MBL. The possession of mutant alleles has been linked to disease outcome for a variety of bacterial and viral infections. Mutant MBL2 haplotypes have been linked to disease progression and response to therapy in HCV infection.