MBL1 Protein, Rat (HEK293, Fc)

Cat. No.:	HY-P77079
Synonyms:	Mannose-binding protein A; MBP-A; RaRF p28B
Species:	Rat
Source:	HEK293
Accession:	P19999 (S18-A238)
Gene ID:	24548
Molecular Weight:	Approximately 56-60 kDa due to the glycosylation

PROPERTIES

AA Sequence	S G S Q T C E E T L K T C S V I A C G R D G R D G P K G E K G E P G Q G L R G L Q G P P G K L G P P G S V G A P G S Q G P K G Q K G D R G D S R A I E V K L A N M E A E I N T L K S K L E L T N K L H A F S M G K K S G K K F F V T N H E R M P F S K V K A L C S E L R G T V A I P R N A E E N K A I Q E V A K T S A F L G I T D E V T E G Q F M Y V T G G R L T Y S N W K K D E P N D H G S G E D C V T I V D N G L W N D I S C Q A S H T A V C E F P A
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Mannan at 2μg/mL (100 μL/well) can bind Rat MBL1. The ED_{50} for this effect is 1.308 μg/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	MBL1, a calcium-dependent lectin, plays a crucial role in the innate immune response by binding to mannose, fucose, and N-acetylglucosamine moieties on various microorganisms, thereby activating the lectin complement pathway. Beyond its involvement in host defense, MBL1 exhibits affinity for late apoptotic cells, apoptotic blebs, and necrotic cells, facilitating

their uptake by macrophages. The protein forms homotrimers and assembles into higher oligomeric complexes through the association of two, three, or more homotrimers, a process occurring in the endoplasmic reticulum. This oligomerization pattern underscores the structural complexity of MBL1. Additionally, MBL1 interacts with MASP1 and MASP2, further connecting its role in lectin-mediated immune responses and complement activation.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA