Active Human Mannose Associated Serine Protease 2 (MASP2)

Catalog # IC7859

FOR IN VITRO USE AND RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

[PROPERTIES]

Source: Prokaryotic expression.
Host: E. coli
Residues: Ile445~Ile683
Tags: N-terminal His-tag
Purity: >98%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and Proclin300.
Applications: Cell culture; Activity Assays; In vivo assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.7
Predicted Molecular Mass: 27.4kDa
Accurate Molecular Mass: 27kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8oC for one month.
Aliquot and store at -80oC for 12 months.
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37oC for 48h, and no obvious degradation and precipitation were observed.The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

IYGGQK
AKPGDFPWQV LILGGTTAAG ALLYDNWVLT AAHAVYEQKH DASALDIRMG
TLKRLSPHYT QAWSEAVFIH EGYTHDAGFD NDIALIKLNN KVVINSNITP
ICLPRKEAES FMRTDDIGTA SGWGLTQRGF LARNLMYVDI PIVDHQKCTA
AYEKPPYPRG SVTANMLCAG LESGGKDSCR GDSGGALVFL DSETERWFVG
GIVSWGSMNC GEAGQYGVYT KVINYIPWIE NII

[ACTIVITY]

MASP2 (Mannan-binding lectin serine protease 2) is a serum protease that plays an important role in the activation of the complement system via mannose-binding lectin. The preproprotein of MASP2 is proteolytically processed to generate A and B chains that heterodimerize to form the mature protease, which is able to associate with MBL2. Thus, a functional binding ELISA assay was constructed to detect the association of rhMASP2 with MBL2. Briefly, rhMASP-2 were diluted serially in 10mM Tris-HCl, 1M NaCl, 5mM $CaCl_2$, and 0.05%Triton X-100 (pH 7.4). Duplicate samples of 100uL were then transferred to MBL2-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-MASP-2 pAb, then aspirated and washed 3 times. After incubation with HRP labeled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution , wells were incubated for 15-25 minutes at 37°C. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of MASP2 with MBL2 was shown in Figure 1 and this effect was in a dose dependent manner.

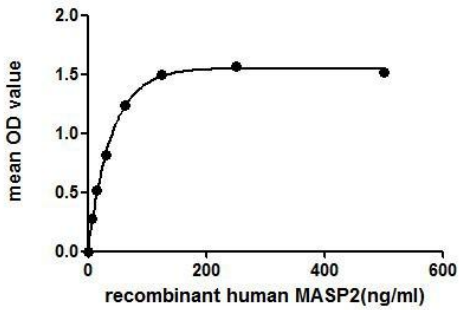

Figure 1. The binding activity of MASP2 with MBL2.

[IDENTIFICATION]

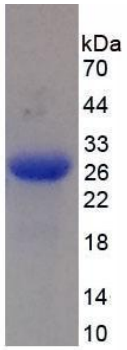

Figure 2. SDS-PAGE

Sample: Active recombinant MASP2, Human

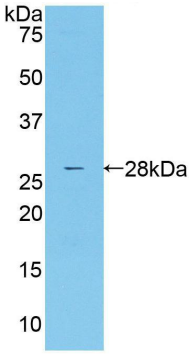

Figure 3. Western Blot

Sample: Recombinant MASP2, Human;

Antibody: Rabbit Anti-Human MASP2 Ab