APB685Hu61 500μg
Active Integrin Alpha M (CD11b)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.
Host: 293F cell
Residues: Pro145~Gly337
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 5% Trehalose .
Original Concentration: 500μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 9.4
Predicted Molecular Mass: 23.6kDa
Accurate Molecular Mass: 27&30kDa as determined by SDS-PAGE reducing conditions.
Phenomenon explanation:
The possible reasons that the actual band size differs from the predicted are as follows:
1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C 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 37°C 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]

PQEDSD
IAFLIDGSGS IIPHDFRRMK EFVSTVMEQL KKSKTLFSLM QYSEEFRIHF
TFKEFQNNPN PRSLVKPITQ LLGRTHTATG IRKVVRELFN ITNGARKNAF
KILVVITDGE KFGDPLGYED VIPEADREGV IRYVIGVGDA FRSEKSRQEL
NTIASKPPRD HVFQVNNFEA LKTIQNQLRE KIFAIEG

[ACTIVITY]

Integrin Alpha M (ITGaM, also known as CD11b) is a transmembrane subunit of the heterodimeric integrin receptor Mac-1 (CD11b/CD18), widely expressed on myeloid cells including macrophages, neutrophils, and dendritic cells. It mediates cell adhesion to extracellular matrix proteins (e.g., fibrinogen, ICAM-1) and regulates phagocytosis, inflammation, and immune cell recruitment, playing critical roles in host defense against pathogens and tissue repair. ITGaM binds to complement component C3 (especially its activated fragment C3b), facilitating opsonophagocytosis and amplifying innate immune responses.Briefly, C3 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to ITGaM-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-C3 pAb, then

aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately.Measured by its binding ability in a functional ELISA. When Recombinant ITGaM is Immobilized at 2 μg/mL(100 uLwell), the concentration of C3 that produces 50% optimal bindingresponse is found to be approximately 0.130 μg/mL.

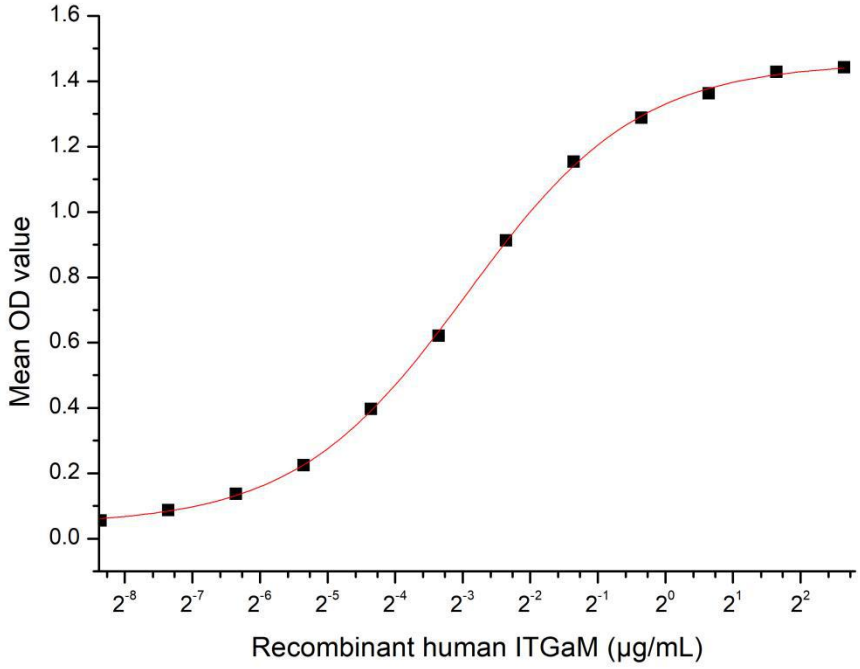

Figure 1. The binding activity of recombinant C3 and ITGaM

[IDENTIFICATION]

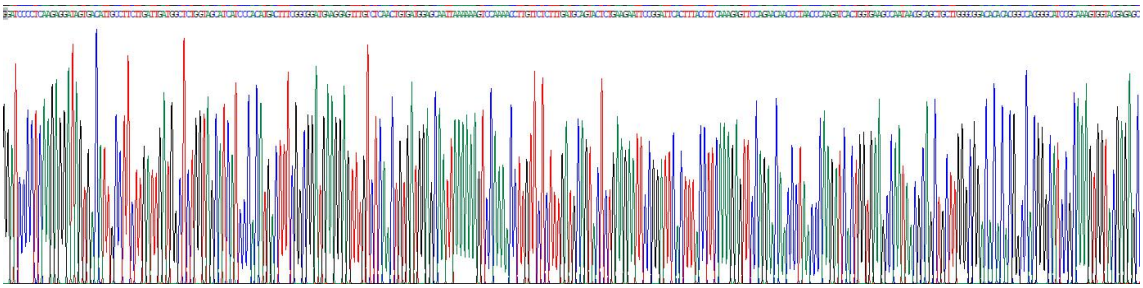

Figure 2. Gene Sequencing (extract)

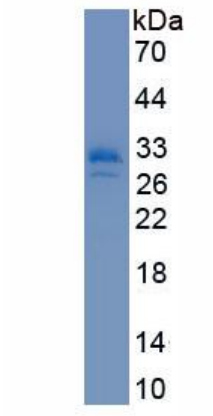

Figure 3. SDS-PAGE

Sample: Active recombinant CD11b, Human

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.