APB941Hu01 100μg
Active Immunoglobulin D (IgD)
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: Prokaryotic expression.
Host: *E. coli*
Residues: Pro2~Lys384
Tags: N-terminal His-tag
Purity: >80%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.2
Predicted Molecular Mass: 45.9kDa
Accurate Molecular Mass: 46kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in ddH_2O to a concentration of 0.1-0.5 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]

PTKAPDVFP IISGCRHPKD NSPVVLACLI TGYHPTSVTV TWYMGTQSQP
QRTFPEIQRR DSYYMTSSQL STPLQQWRQG EYKCVVQHTA SKSKKEIFRW
PESPKAQASS VPTAQPQAEG SLAKATTAPA TTRNTGRGGE EKKKEKEKEE
QEERETKTPE CPSHTQPLGV YLLTPAVQDL WLRDKATFTC FVVGSDLKDA
HLTWEVAGKV PTGGVEEGLL ERHSNGSQSQ HSRLTLPRSL WNAGTSVTCT
LNHPSLPPQR LMALREPAAQ APVKLSLNLL ASSDPPEAAS WLLCEVSGFS
PPNILLMWLE DQREVNTSGF APARPPPQPR STTFWAWSVL RVPAPPSPQP
ATYTCVVSHE DSRTLLNASR SLEVSYVTDH GPMK

[ACTIVITY]

Immunoglobulin D (IgD) is an immunoglobulin similar in structure to other immunoglobulin classes. It is composed of heavy and light polypeptide chains, has a sedimentation coefficient of approximately 7S, and can be fragmented into Fab and Fc fragments. It is present in very low concentrations in human blood, and its function is not fully understood. IgD is believed to play a role in the immune system, possibly in the regulation of immune responses or as a receptor on the surface of B cells. It is one of the five major classes of immunoglobulins, alongside IgA, IgE, IgG, and IgM.Besides,Cluster of Differentiation 79B (CD79B) has been identified as an interactor of IgD, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human IgD and recombinant human CD79B.Briefly, IgD was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CD79B-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-IgD 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. The binding activity of recombinant human IgD and recombinant human CD79B was shown in Figure 1, the EC50 for this effect is 0.044ug/mL.

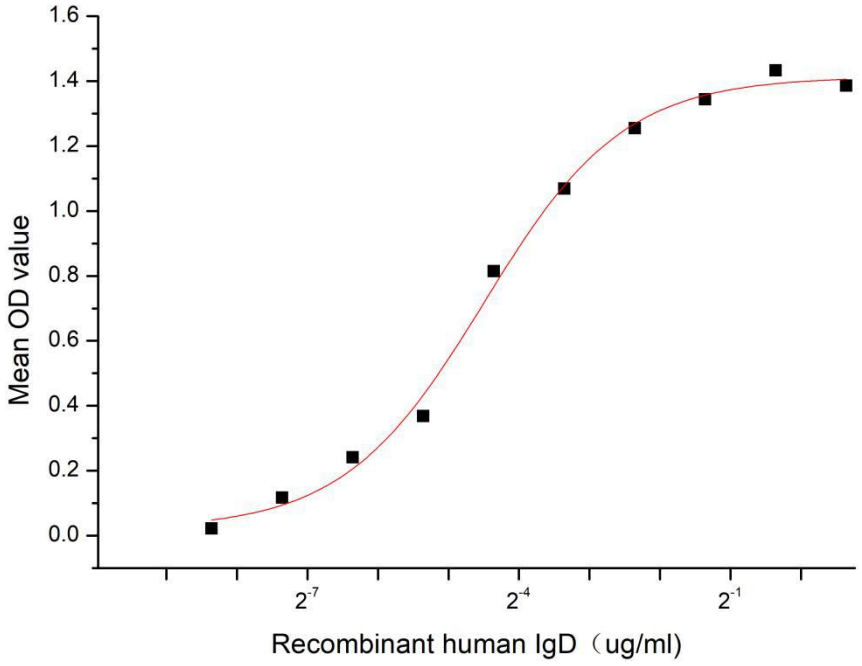

Figure 1. The binding activity of recombinant human IgD and human CD79B

[IDENTIFICATION]

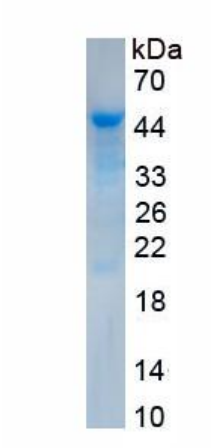

Figure 2. SDS-PAGE

Sample: Active recombinant IgD, 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.