APA833Mu01 100μg
Active Von Willebrand Factor (vWF)
Organism Species: *Mus musculus (Mouse)*
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: Asp1498~Val1665
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 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: 4.5
Predicted Molecular Mass: 22.6kDa
Accurate Molecular Mass: 26kDa as determined by SDS-PAGE reducing conditions.

[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 2-8ºC 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]

DVVFVLEGSDEVGEANFNKSKEFVEEVIQRMDVSPDATRISVLQYSYTVTMEYAFNGAQSKEEV
LRHVREIRYQGGNRTNTGQALQYLSEHSFSPSQGDRVEAPNLVYMVTGNPASDEIKRLPGDIQ
VVPIGVGPHANMQELERISRPIAPIFIRDFETLPREAPDLV

[ACTIVITY]

Von Willebrand Factor (vWF) , a large multimeric plasma glycoprotein , is synthesized mainly by endothelial cells and megakaryocytes. The protein consists of multiple subunits, forming high - molecular - weight multimers. These multimers have emerged as a key player in both primary and secondary hemostasis.During coagulation, coagulation factor VIII (F8) can bind to vWF, and this interaction plays a crucial role in prolonging the half-life of vWF, regulating its activity, and targeting transport.Thus a functional ELISA assay was conducted to detect the interaction of recombinant mouse vWF and recombinant dog F8. Briefly, vWF was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to F8-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-vWF 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 mouse vWF and recombinant dog F8 was shown in Figure 1, the EC50 for this effect is 0.36ug/mL.

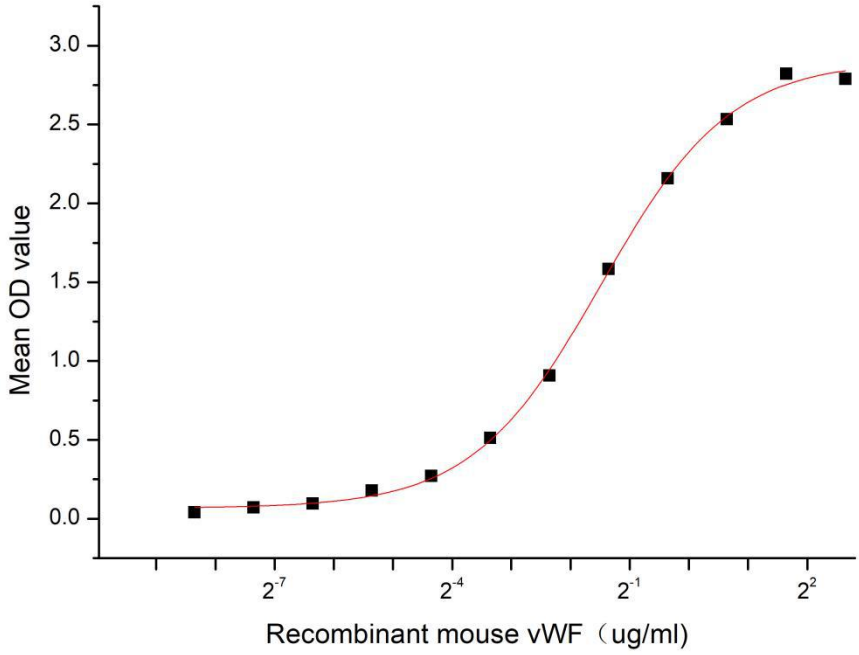

Figure 1. The binding activity of recombinant mouse vWF and recombinant dog F8

[IDENTIFICATION]

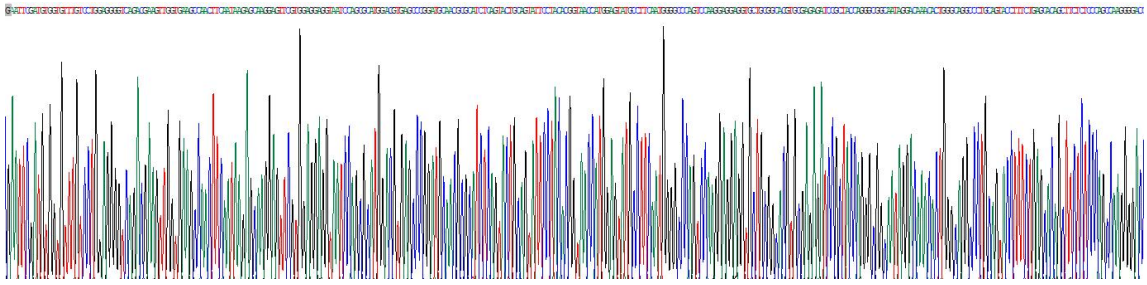

Figure 2. Gene Sequencing (extract)

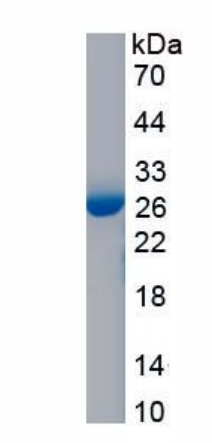

Figure 3. SDS-PAGE

Sample: Active recombinant vWF, Mouse

[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.