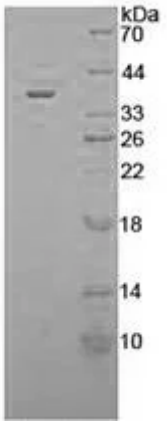
Active Annexin V (ANXA5)

Catalog#:PEM12311

概述（Summary）

别称（Alternative Names）	ANX5; ENX2; PP4; PAP-I; CBP-I; Anchorin CII; Calphobindin I; Endonexin II; Lipocortin V; Placental anticoagulant protein 4; Thromboplastin inhibitor; Vascular anticoagulant-alpha
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Met1-Asp319】
Accession #	P48036
表达宿主（Host）	E.coli
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	37.0 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	This protein is an anticoagulant protein that acts as an indirect inhibitor of the thromboplastin-specific complex, which is involved in the blood coagulation cascade.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

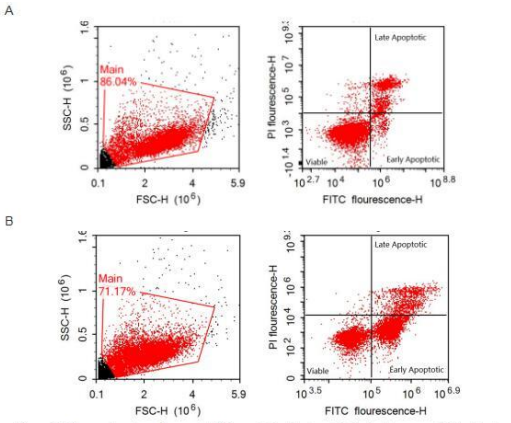


Figure 2. Flow cytometry of apoptotic Camptothecin-treated Jurkat by annexin V staining
(A) Jurkat were untreated with 10 uM camptothecin
(B) Jurkat were treated with 10 uM camptothecin

Annexin V (ANXA5) is a multifunctional protein that is highly expressed on the apical surfaces of syncytiotrophoblasts, and plays an important role in haemostatic regulations, maintaining blood fluidity of the placenta. Lower ANXA5 levels have been observed in M2/ANXA5 haplotype carrying chorion. The association found between the maternal carriage of the M2/ANXA5 haplotype and an elevated risk of IUGR and/or PE supports the hypothesis that carrier status of this haplotype and the consequently reduced placental ANXA5 expression might be responsible, at least partially, for the onset of these gestational vascular complications. ANXA5 could be used as a biomarker for the early detection of PE and for the prediction of its severity. ANXA5 as an embryonic anticoagulant that appears deficient in contiguous specter of thrombophilia-related pregnancy complications culminating more frequently in miscarriage in a maternal M2 carrier background. Besides, Vinculin (VCL) has been identified as an interactor of ANXA5, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse ANXA5 and recombinant human VCL. Briefly, ANXA5 were diluted serially in PBS, with 0.01% BSA (pH7.4). Duplicate samples of 100 µl were then transferred to VCL-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-ANXA5 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50µL stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant mouse ANXA5 and recombinant human VCL was shown in Figure 1, and this effect was in a dose dependent manner, the EC50 was 2.79 ug/ml. Annexin V (ANXA5) is a multifunctional protein that is highly expressed on the apical surfaces of syncytiotrophoblasts, and plays an important role in haemostatic regulations, maintaining blood fluidity of the placenta. Lower ANXA5 levels have been observed in M2/ANXA5 haplotype carrying chorion. The association found between the maternal carriage of the M2/ANXA5 haplotype and an elevated risk of IUGR and/or PE supports the hypothesis that carrier

status of this haplotype and the consequently reduced placental ANXA5 expression might be responsible, at least partially, for the onset of these gestational vascular complications. Annexin V is a calcium-dependent phospholipid binding protein that can be used to bind Phosphatidylserine (PS) during an early apoptosis event where the PS becomes exposed at the cell surface. Jurkat cells were treated with 10 uM camptothecin for 4h, 2*105 cells which were resuspended in binding buffer were stained with 5 ug recombinant mouse Annexin V-FITC and 10 ul Propidium iodide (PI) for 20min in dark room temperature. The flow cytometry was used to detect the early apoptotic and late apoptotic of camptothecin-treated Jurkat cells (Figure 2), the combination of Annexin V-FITC and propidium iodide allows for the distinction between early apoptotic cells (Annexin V-FITC positive and propidium iodide negative), late apoptotic and/or necrotic cells (Annexin V-FITC and propidium iodide positive), and viable cells (unstained). Thus, the recombinant mouse Annexin V-FITC can bind Phosphatidylserine (PS) at early apoptosis of Jurkat.

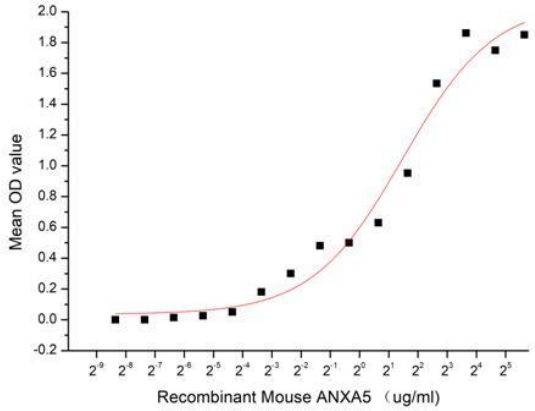


Figure 1. The binding activity of recombinant mouse ANXA5 and recombinant human VCL

注意事项（Note）

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