

APB944Hu01 10µg
Active Annexin A2 (ANXA2)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Met1~Asp339

Tags: His and TrxA Taq

Purity: >95%

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: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 7.6

Predicted Molecular Mass: 59.0kDa

Accurate Molecular Mass: 55kDa 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 2-8°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]

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MSTVHEILCK LSLEGDHSTP PSAYGSVKAY TNFDAERDAL NIETAIKTKG
VDEVTIVNIL TNRSNAQRQD IAFAYQRRTK KELASALKSA LSGHLETVIL
GLLKTPAQYD ASELKASMKG LGTDEDSLIE IICSRNQL QEINRVYKEM
YKTDLEKDII SDTSGDFRKL MVALAKGRRR EDGSVIDYEL IDQDARDLYD
AGVKKRGTDV PKWISIMTER SVPHLQKQVD RYKSYSPYDM LESIRKEVKG
DLENAFLNLV QCIQNKPLYF ADRLYDSMKG KGTRDKVLIR IMVSRSEVDM
LKIRSEFKRK YGKSLYYYIQ QDTKGDYQKA LLYLCGGDD
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[ACTIVITY]

Annexin A2 (ANXA2) also known as annexin II is a member of the annexin family. Members of this calcium-dependent phospholipid-binding protein family play a role in the regulation of cellular growth and in signal transduction pathways. This protein functions as an autocrine factor which heightens osteoclast formation and bone resorption. ANXA2 is up-regulated in various tumor types and plays multiple roles in regulating cellular functions, including angiogenesis, proliferation, apoptosis, cell migration, invasion and adhesion. To test the effect of ANXA2 on cell proliferation, Hela cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach, replaced with serum-free overnight, then the medium was replaced with 1% serum standard DMEM prior to the addition of various concentrations of recombinant human ANXA2. After incubated for 96h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μ L of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at

37°C. Proliferation of HeLa cells after incubation with ANXA2 for 96h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 assay after incubation with recombinant ANXA2 for 96h. The result was shown in Figure 2. It was obvious that ANXA2 significantly increased cell viability of HeLa cells.

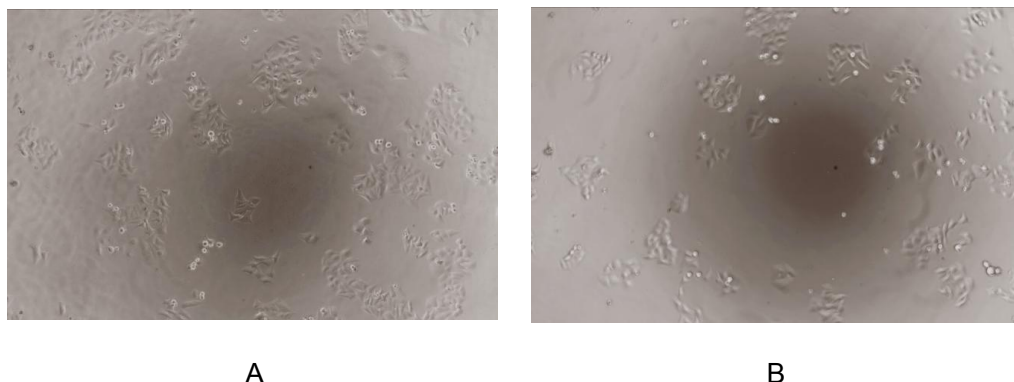


Figure 1. Cell proliferation of HeLa cells after stimulated with ANXA2.

(A) HeLa cells cultured in DMEM, stimulated with 10ng/mL ANXA2 for 96h;

(B) Unstimulated HeLa cells cultured in DMEM for 96h.

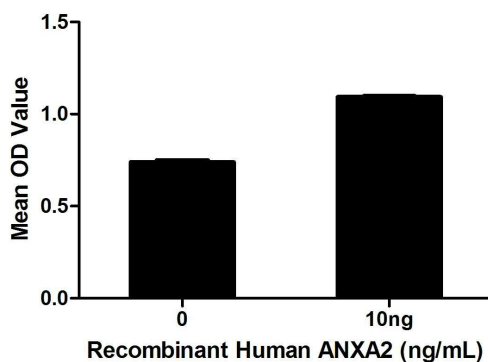


Figure 2. Cell proliferation of HeLa cells after stimulated with ANXA2.

[IDENTIFICATION]

GGATCCATGCTACTGTTTCAGCAAAATGCTGTGCGAGCTCAGCTTGGGAGGGGGATCACTCTACACCCCGAAGTGCATATGGGTCTGTCAAAAGCCTATACCTTTGATGCTGAGCCGGGATGCTTTGAACTTTGAAAGAGCCATCAAGAGCCAAAGGTGTGGATGAGGGTCAAGCTTGTGCAAGCA

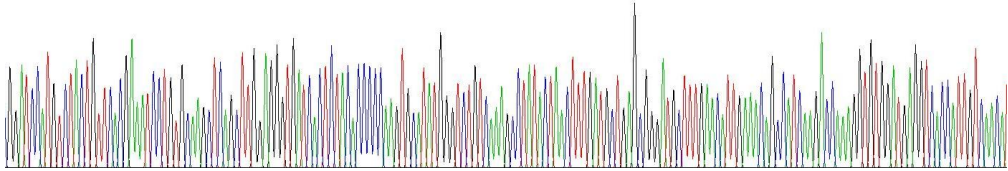


Figure 3. Gene Sequencing (extract)

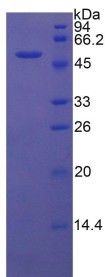


Figure 4. SDS-PAGE

Sample: Active recombinant ANXA2, Human

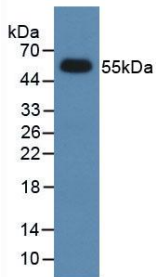


Figure 5 Western Blot

Sample: Recombinant ANXA2, Human;

Antibody: Rabbit Anti-Human ANXA2 Ab (PAB944Hu01)

[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.