APA372Hu61 100μg
Active Gelsolin (GSN)
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: Ala28~Ala782
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 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: 5.9
Predicted Molecular Mass: 84.6kDa
Accurate Molecular Mass: 80&42kDa 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]

ATA SRGASQAGAP QGRVPEARPN
SMVVEHPEFL KAGKEPGLQI WRVEKFDLVP VPTNLYGDFF TGDAYVILKT
VQLRNGNLQY DLHYWLGNEC SQDESGAAAI FTVQLDDYLN GRAVQHREVQ
GFESATFLGY FKSGLKYKKG GVASGFKHVV PNEVVVQRLF QVKGRRVVRA
TEVPVSWESF NNGDCFILDL GNNIHQWCGS NSNRYERLKA TQVSKGIRDN
ERSGRARVHV SEEGTEPEAM LQVLGPKPAL PAGTEDTAKE DAANRKLAKL
YKVSNGAGTM SVSLVADENP FAQGALKSED CFILDHGKDG KIFVWKGKQA
NTEERKAALK TASDFITKMD YPKQTQVSVL PEGGETPLFK QFFKNWRDPD
QTDGLGLSYL SSHIANVERV PFDAATLHTS TAMAAQHGMD DDGTGQKQIW
RIEGSNKVPV DPATYGQFYG GDSYIILYNY RHGGRQGQII YNWQGAQSTQ
DEVAASAILT AQLDEELGGT PVQSRVVQGK EPAHLMSLFG GKPMIIYKGG
TSREGGQTAP ASTRLFQVRA NSAGATRAVE VLPKAGALNS NDAFVLKTPS
AAYLWVGTGA SEAEKTGAQE LLRVLRAQPV QVAEGSEPDG FWEALGGKAA
YRTSPRLKDK KMDAHPPRLF ACSNKIGRFV IEEVPGELMQ EDLATDDVML
LDTWDQVFVW VGKDSQEEEK TEALTSAKRY IETDPANRDR RTPITVVKQG
FEPPSFVGWF LGWDDDYWSV DPLDRAMAEL AA

[ACTIVITY]

Gelsolin (GSN), one of the most abundant actin-binding proteins, is a multifunctional regulator of physiological and pathological cellular process and

regulate cell migration, cell morphology, proliferation and apoptosis. Widely expressed, Gelsolin binds to actin and fibronectin, and is found both secreted in plasma and in cytoplasm and a previous study revealed that the levels of GSN are decreased in various cancer. Profilin-1 (PFN1) can also bind to actin and affects the structure of the cytoskeleton. PFN1 is one of the ligands of GSN, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human GSN and recombinant human PFN1. Briefly, GSN was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to PFN1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-GSN 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 450/630 nm immediately. The binding activity of recombinant human GSN and recombinant human PFN1 was shown in Figure 1, the EC50 for this effect is 1.11 ug/mL.

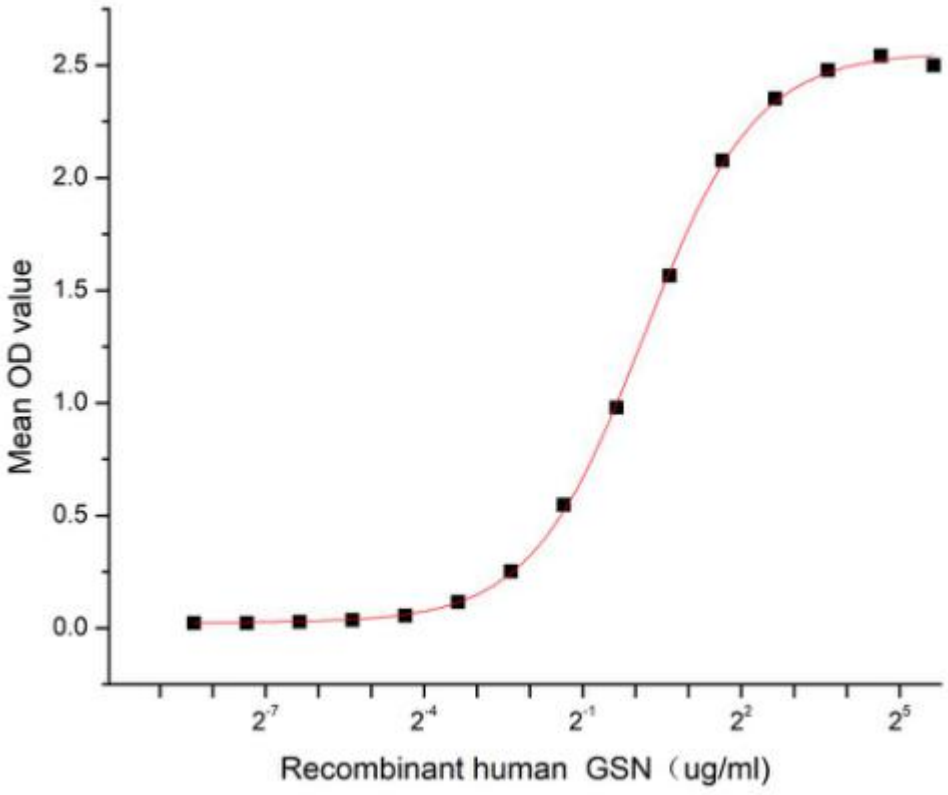

Figure 1. The binding activity of recombinant human GSN and recombinant human PFN1

[IDENTIFICATION]

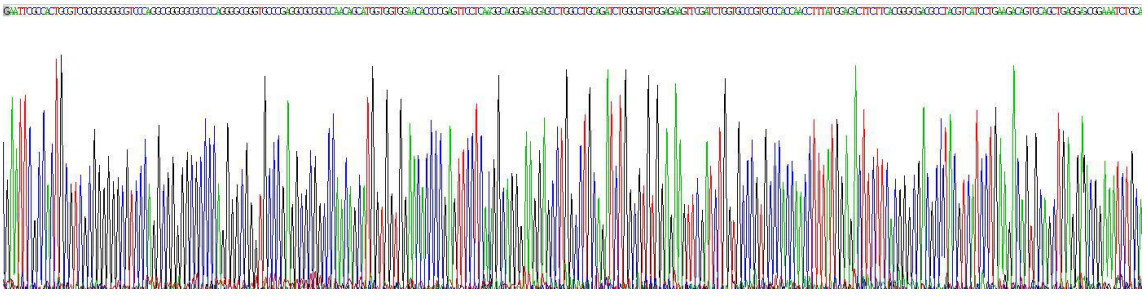

Figure 2. Gene Sequencing (extract)

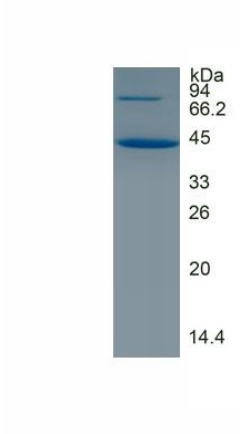

Figure 3. SDS-PAGE

Sample: Active recombinant GSN, 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.