

APC358Hu01 100µg

Active Calpain 2 (CAPN2)

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: Leu45~Asp514

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% 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: 5.0

Predicted Molecular Mass: 57.4kDa

Accurate Molecular Mass: 57kDa 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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                                                                    LFQDPS
FPAIPALGF KELGPYSSKT RGI EWKRPT ICADPQFIIG GATRTDICQG
ALGDCWLLAA IASLTLNEEI LARVVPLNQS FQENYAGIFH FQFWQYGEWV
EVVVDRLPT KDGELLFVHS AEGSEFWSAL LEKAYAKING CYEALSGGAT
TEGFEDFTGG IAEWYELKKP PPNLFKIIQK ALQKGSLLGC SIDITSAADS
EAITFQKLVK GHAYSVTGAE EVESNGSLQK LIRIRNPWGE VEWTGRWVND
CPSWNTIDPE ERERLTRRHE DGEFWMFSFD FLRHYSRLEI CNLTPDTLTS
DTYKKWKLTK MDMNRRGST AGGCRNYPNT FWMNPQYLIK LEEDEDEED
GESGCTFLVG LIQKRRRQR KMGEDMHTIG FGIYEVPEEL SGQTNIHLSK
NFFLTNRARE RSDTFINLRE VLNRFKLPPE EYILVPSTFE PNKDGDFCIR
VFSEKKADYQ AVDD
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[ACTIVITY]

Calpain 2 (CAPN2) is a calcium-regulated, non-lysosomal thiolprotease that is known for its crucial role in catalyzing the limited proteolysis of substrates essential for cytoskeletal remodeling and signaling pathways. It belongs to the family of calpains, a group of enzymes that are activated by calcium ions. Besides, CAPN1 has been identified as an interactor of CAPN2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human CAPN2 and recombinant rat CAPN1. Briefly, CAPN2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to CAPN1-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CAPN2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ L stop solution to the wells and read at 450/630nm immediately. The

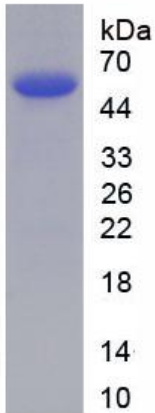


Figure 3. SDS-PAGE

Sample: Active recombinant CAPN2, 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.