

Calpain 1 (CAPN1) Active Protein | CAPN1 active protein

Active Calpain 1 (CAPN1)

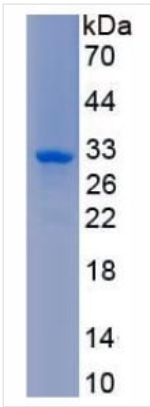
CATALOG # AAA161456	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Calpain 1 (CAPN1); Active Calpain 1 (CAPN1); CAPN1 active protein

PRODUCT SPECIFICATIONS

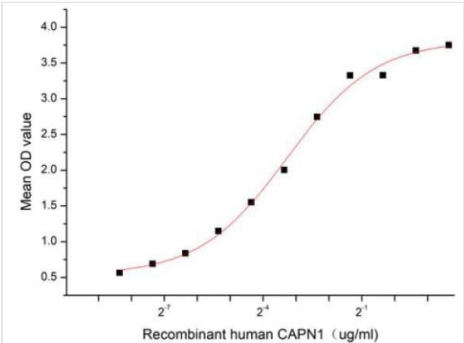
Host	E Coli
Purity/Purification	>95%
Concentration	200ug/mL (varies by lot)
Sequence Positions	Pro75~Arg343
Applicable Applications for CAPN1 active protein	Activity Assay, Cell Culture
Tag Information	N-terminal His-tag
Activity	Calpain 1 (CAPN1), a calcium-dependent cysteine protease, is a member of the calpain family. CAPN1 is primarily found in muscle tissue, particularly in skeletal muscle, where it is involved in the regulation of muscle contraction and relaxation. It is involved in various physiological and pathological processes, such as apoptosis, cell signal transduction and cytoskeleton reconstruction. It is reported that the binding of BID and CAPN1 plays an important role in the process of apoptosis. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human CAPN1 and recombinant human BID. Briefly, CAPN1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to BID-coated microtiter wells and incubated for 1h at 37 $^{\circ}$ C. Wells were washed with PBST and incubated for 1h with anti-CAPN1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 $^{\circ}$ C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 $^{\circ}$ C. Finally, add 50 μ l stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human CAPN1 and recombinant human BID was shown in Figure 1, the EC50 for this effect is 0.1 μ g/mL.
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Buffer Formulation	PBS, pH7.4, containing 0.01% SKL, 5%Trehalose.
Predicted Isoelectric Point	5.5
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 $^{\circ}$ C for one month. Aliquot and store at -80 $^{\circ}$ C for 12 months.



Gene Sequencing

SDS_PAGE

Sample: Active recombinant CAPN1, Human



Sequence

PNSSKT YGIKWKRPTE LLSNPQFIVD
GATRTDICQG ALGDCWLLAA IASLTLDNTL LHRVPHGQS FQNGYAGIFH
FQLWQFGEW DVVVDLLPI KDGKLVFVHS AEGNEFWSAL LEKAYAKVNG
SYEALSGGST SEGFEFTGG VTEWYELRKA PSDLYQIILK ALERGSLLGC
SIDISSVLDM EAITFKKLVK GHAYSVTGAK QVNYRGQVVS LIRMRNPWGE
VENTGAWSDS SSEWNNVDPY ERDQLRVKME DGEFWSFRD FMR

Bioactivity

Figure 1. The binding activity of recombinant human CAPN1 and recombinant human BID

NCBI AND UNIPROT INFORMATION

Molecular Weight	Predicted Molecular Mass: 31.6kDa; Accurate Molecular Mass: 32kDa as determined by SDS-PAGE reducing conditions
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/calpain-1-capn1/161456>