

Calpain 1 (CAPN1) Active Protein | CAPN1 active protein

Active Calpain 1 (CAPN1)

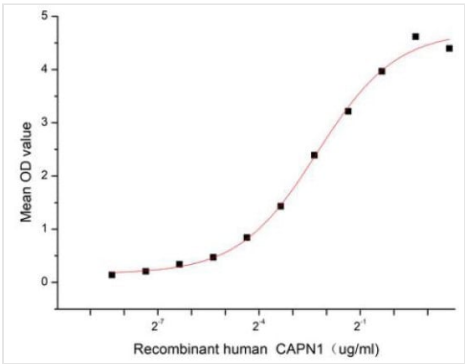
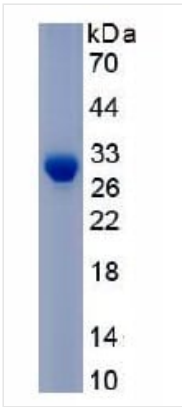
CATALOG # AAA161457	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

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	Lys426~Val676
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 0.21 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	6.3
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.



Bioactivity

SDS-PAGE

Sequence

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                KHRRR  ERRFGRDMET  IGFAVYEVPP
ELVGQPAVHL  KRDFFLANAS  RARSEQFINL  REVSTRFRLP  PGEYVVVPST
FEPNKEGDFV  LRFFSEKSAG  TVELDDQIQA  NLPDEQVLSE  EEIDENFKAL
FRQLAGEDME  ISVKELRTIL  NRIISKHKDL  RTKGFSLESC  RSMVNLMDRD
GNKGLGLVEF  NILWNRIRNY  LSIFRKFDLD  KSGSMSAYEM  RMAIESAGFK
LNKKLYELII  TRYSEPDLAV  DFDNFV
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NCBI AND UNIPROT INFORMATION

Molecular Weight	Predicted Molecular Mass: 30.5kDa; Accurate Molecular Mass: 31kDa 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.