

Calpain 1, Large Subunit (CAPN1) Active Protein | CAPN1 active protein

Active Calpain 1, Large Subunit (CAPN1)

CATALOG # AAA148199	HOST E Coli	REACTIVITY Rat	APPLICATIONS Activity Assay, Cell Culture
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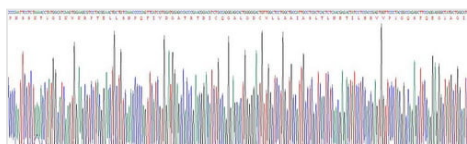
PRODUCT SYNONYMS

Calpain 1; Large Subunit (CAPN1); Active Calpain 1; PIG30; CANPL1; MuCANP; MuCL; Calpain-1 Catalytic Subunit; Calcium-Dependent Protease 1; Calcium-activated neutral proteinase 1; Calpain mu-type; Micromolar-calpain; CAPN1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Reactivity	Rat
Purity/Purification	> 95%
Form/Format	Freeze-dried powder
Sequence Length	713
Applicable Applications for CAPN1 active protein	Activity Assay, Cell Culture
Tag	N-terminal His Tag
Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Fragment	Pro75~Asp356
Isoelectric Point	5.3

IMAGES



Application Data

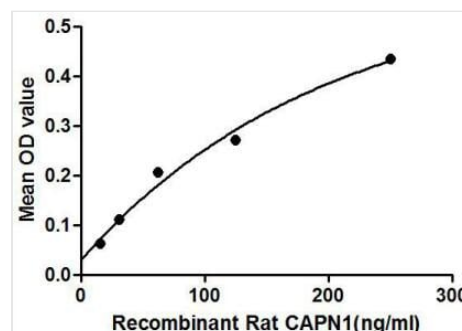
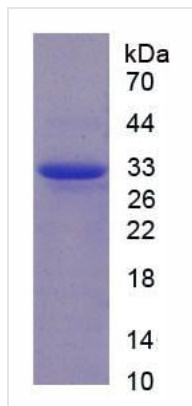


Figure 1. The binding activity of CAPN1 with STAT3.

Application Data



SDS-PAGE

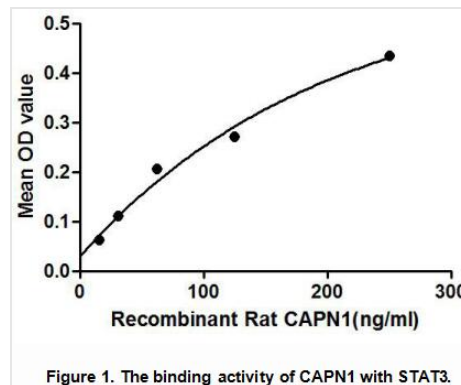


Figure 1. The binding activity of CAPN1 with STAT3.

Activity

Calpain 1, Large Subunit (CAPN1) is an intracellular protease that requires calcium for its catalytic activity. Calcium-regulated non-lysosomal thiol-protease which catalyze limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction. It has broad endopeptidase specificity. Besides, Signal Transducer And Activator Of Transcription 3 (STAT3) has been identified as an interactor of CAPN1, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat CAPN1 and recombinant rat STAT3. Briefly, CAPN1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to STAT3-coated microtiter wells and incubated for 2h at 37 degree 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, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of CAPN1 and STAT3 was shown in Figure 1, and this effect was in a dose dependent manner.

ADDITIONAL INFORMATION

Product Categories/Family for CAPN1 active protein	Enzyme & Kinase; Neuroscience; Gastroenterology
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NCBI AND UNIPROT INFORMATION

NCBI GI #	9506461
NCBI GeneID	29153
NCBI Accession #	NP_062025.1
NCBI GenBank Nucleotide #	NM_019152.2
UniProt Accession #	P97571
Molecular Weight	Predicted Molecular Weight: 33.5kDa Accurate Molecular Weight: 33kDa
NCBI Official Full Name	calpain-1 catalytic subunit
NCBI Official Synonym Full Names	calpain 1
NCBI Official Symbol	Capn1
NCBI Protein Information	calpain-1 catalytic subunit
UniProt Protein Name	Calpain-1 catalytic subunit
UniProt Gene Name	Capn1
UniProt Synonym Gene Names	muCANP

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.

