

Rat Calpain 1 protein, His tag

Cat. No. GTX00358-pro

Applications Functional Assay**Species** Rat**Package**

10 µg

Applications

Application Note

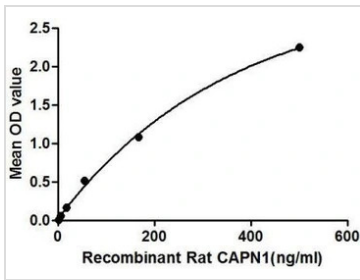
Calpain 1, Large Subunit (CAPN1) is an intracellular protease that requires calcium for its catalytic activity. Calcium-regulated non-lysosomal thiol-protease which catalyze limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction. It has broad endopeptidase specificity. 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 100 µl were then transferred to STAT3-coated microtiter wells and incubated for 2h at 37°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°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of CAPN1 and STAT3 was in a dose dependent manner.

Observed MW (kDa) 35 kDa.

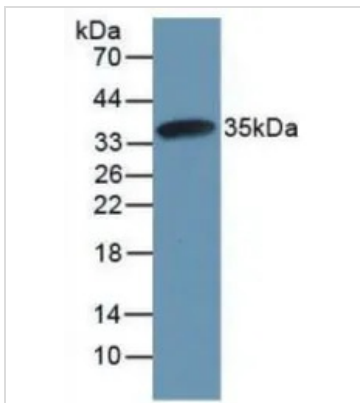
Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Tyr387~Asp694 (NP_062025.1)**Expression System** E. coli**Purity** > 90%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

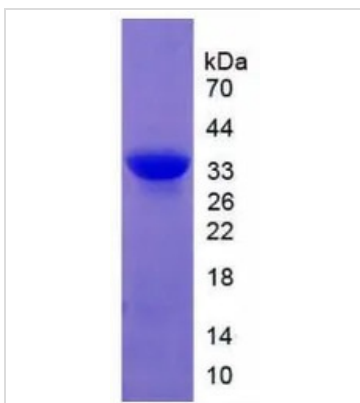
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DATA IMAGES

GTx00358-pro Functional Assay Image

Functional ELISA analysis of GTx00358-pro Rat Calpain 1 protein which can bind immobilized STAT3 protein.


GTx00358-pro Image

WB analysis of GTx00358-pro Rat Calpain 1 protein.


GTx00358-pro Image

SDS-PAGE analysis of GTx00358-pro Rat Calpain 1 protein.



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