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Product Datasheet

Rat Calpain 1 protein, His tag, Unconjugated GTX00358-PRO

Article Name	Rat Calpain 1 protein, His tag, Unconjugated
Biozol Catalog Number	GTX00358-PRO
Supplier Catalog Number	GTX00358-pro
Alternative Catalog Number	GTX00358-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Rat
Conjugation	Unconjugated
NCBI	29153
UniProt	P97571
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, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His-Tag, Tyr387~Asp694 (NP_062025.1)

Application Notes

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 37C. 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 37C. 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.