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Product Datasheet

Human Calpain 3 protein, His tag, Unconjugated GTX00194-PRO

Article Name	Human Calpain 3 protein, His tag, Unconjugated
Biozol Catalog Number	GTX00194-PRO
Supplier Catalog Number	GTX00194-pro
Alternative Catalog Number	GTX00194-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Human
Conjugation	Unconjugated
NCBI	825
UniProt	P20807
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, Ile602~Ala821 (NP_000061.1)

Application Notes

Calpain 3 is a calcium-dependent cysteine protease mainly expressed in skeletal muscle. In humans, calpain 3 is encoded by the CAPN3 gene. This gene encodes a muscle-specific member of the calpain large subunit family that specifically binds to titin. Mutations in this gene are associated with limb-girdle muscular dystrophies type 2A. Alternate promoters and alternative splicing result in multiple transcript variants encoding different isoforms and some variants are ubiquitously expressed. Besides, Titin (TTN) has been identified as an interactor of CAPN3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CAPN3 and recombinant human TTN. Briefly, CAPN3 were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to TTN-coated microtiter wells and incubated for 2h at 37C. Wells were washed with PBST and incubated for 1h with anti-CAPN3 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 CAPN3 and TTN was in a dose dependent manner.