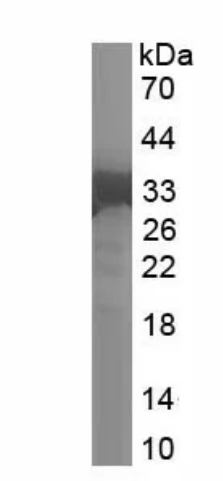
Active Calpain 1 (CAPN1)

Catalog#:PEH12787

概述（Summary）

别称（Alternative Names）	PIG30; CANPL1; MuCANP; MuCL; Calpain 1, Large Subunit; Calpain-1 Catalytic Subunit; Calcium-Dependent Protease 1; Calcium-activated neutral proteinase 1; Calpain mu-type; Micromolar-calpain
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Pro75-Arg343】
Accession #	P07384
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	31.6 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Calcium-regulated non-lysosomal thiol-protease which catalyzes limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction. Proteolytically cleaves CTBP1 at 'Asn-375', 'Gly-387' and 'His-409'.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

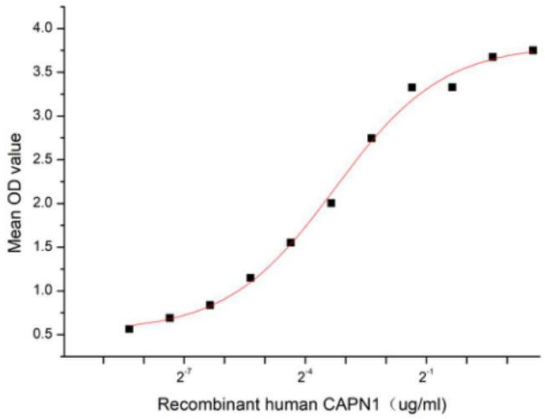


Figure 1. The binding activity of recombinant human CAPN1 and recombinant human BID

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 µl were then transferred to BID-coated microtiter wells and incubated for 1h at 37℃. 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℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL 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 0.1 ug/mL.

注意事项（Note）

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