

## Rat Cathepsin A protein, His and GST tag

## Cat. No. GTx00059-pro

Applications	Functional Assay	Package
Species	Rat	10 µg

## Applications

## Application Note

Cathepsin A (CTSA) is an enzyme that is classified both as a cathepsin and a carboxypeptidase. This gene encodes a glycoprotein that associates with lysosomal enzymes beta-galactosidase and neuraminidase to form a complex of high-molecular-weight multimers. The formation of this complex provides a protective role for stability and activity. It is protective for  $\beta$ -galactosidase and neuraminidase. Besides, Neuraminidase (NEU) has been identified as an interactor of CTSA, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat CTSA and recombinant rat NEU. Briefly, CTSA were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to NEU-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CTSA 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  $\mu$ l stop solution to the wells and read at 450nm immediately. The binding activity of CTSA and NEU was in a dose dependent manner.

Observed MW (kDa) 57 kDa.

## Properties

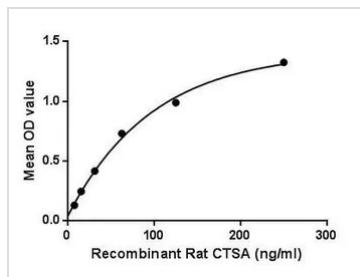
Form	Lyophilized powder
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.
Preservative	ProClin 300
Storage	For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.
Region/Sequence	N-terminal His and GST-Tag; Ala151~Val394
Expression System	E. coli
Purity	> 90%
Endotoxin	< 1 EU/ $\mu$ g
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.



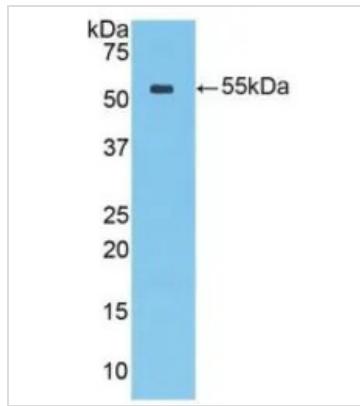
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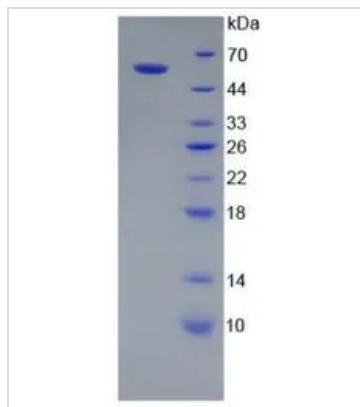
## DATA IMAGES

**GTX00059-pro Functional Assay Image**

Functional ELISA analysis of GTX00059-pro Rat Cathepsin A protein which can bind immobilized NEU protein.

**GTX00059-pro Image**

WB analysis of GTX00059-pro Rat Cathepsin A protein.

**GTX00059-pro Image**

SDS-PAGE analysis of GTX00059-pro Rat Cathepsin A protein.



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