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## Recombinant human Cathepsin F protein

Catalog Number: ATGP4026

## **PRODUCT INFORMATION**

## **Expression system**

Baculovirus

#### **Domain**

20-484aa

#### UniProt No.

O9UBX1

#### **NCBI Accession No.**

NP 003784

#### **Alternative Names**

CTSF, CATSF, CLN13

## **PRODUCT SPECIFICATION**

## **Molecular Weight**

52.5kDa (474aa)

#### Concentration

0.25mg/ml (determined by Absorbance at 280nm)

#### **Formulation**

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 40% glycerol

### **Purity**

> 90% by SDS-PAGE

#### **Endotoxin level**

< 1 EU per 1ug of protein (determined by LAL method)

## **Biological Activity**

Specific activity is > 5 pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1pmole of Z-Phe-Arg-AMC to Z-Phe-Arg and AMC per minute at pH 5.0 at 37°C.

## **Tag**

His-Tag

## **Application**

SDS-PAGE, Enzyme Activity

## **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## **BACKGROUND**



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## **Description**

Cathepsin F, also known as CTSF, belongs to the cathepsin family. Cathepsins are papain family cysteine proteinases that represent a major component of the lysosomal proteolytic system. This protein is thought to play a role in normal protein catabolism, and because it is highly expressed in some cancer cell lines, it may be involved in degradative processes occurring during tumor progression. The CTSF gene may function as a tumor suppressor in Gastric cancer and may be a potential therapeutic target in the treatment of Gastric cancer. It also can be used as an alternative way to test for the disease known as Opisthorchis Viverrini. Recombinant human Cathepsin F protein, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

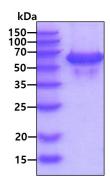
<ADL>APAQPRA ASFQAWGPPS PELLAPTRFA LEMFNRGRAA GTRAVLGLVR GRVRRAGQGS LYSLEATLEE PPCNDPMVCR LPVSKKTLLC SFQVLDELGR HVLLRKDCGP VDTKVPGAGE PKSAFTQGSA MISSLSQNHP DNRNETFSSV ISLLNEDPLS QDLPVKMASI FKNFVITYNR TYESKEEARW RLSVFVNNMV RAQKIQALDR GTAQYGVTKF SDLTEEEFRT IYLNTLLRKE PGNKMKQAKS VGDLAPPEWD WRSKGAVTKV KDQGMCGSCW AFSVTGNVEG QWFLNQGTLL SLSEQELLDC DKMDKACMGG LPSNAYSAIK NLGGLETEDD YSYQGHMQSC NFSAEKAKVY INDSVELSQN EQKLAAWLAK RGPISVAINA FGMQFYRHGI SRPLRPLCSP WLIDHAVLLV GYGNRSDVPF WAIKNSWGTD WGEKGYYYLH RGSGACGVNT MASSAVVD<HH HHHH>

#### **General References**

Schmitz J., et al, (2015) ChemMedChem. 10:1365-1377. Ji C., et al, (2018) Oncol Res. 26:83-93. Kulkarni G., et al, (2021) Schizophr Res. 228:435-437.

### **DATA**

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

