**Proteins** 

# **Product** Data Sheet

# Cathepsin E Protein, Mouse (HEK293, His)

Cat. No.: HY-P7751

Synonyms: rMuCathepsin E, His; Cathepsin E; ctse;

Species: Mouse **HEK293** Source:

P70269 (S60-P397) Accession:

Gene ID: 13034

Molecular Weight: Approximately 42.0 kDa

#### **PROPERTIES**

AA Sequ	ence	١
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SCNVYSSVNE PLINYLDMEY FGTISIGTPP QNFTVIFDTG  $\mathsf{S} \; \mathsf{S} \; \mathsf{N} \; \mathsf{L} \; \mathsf{W} \; \mathsf{V} \; \mathsf{P} \; \mathsf{S} \; \mathsf{V} \; \mathsf{Y}$ CTSPACKAHP VFHPSQSDTY TEVGNHFSIQ YGTGSLTGII GADQVSVEGL TVDGQQFGES VKEPGQTFVN AEFDGILGLG YPSLAAGGVT PVFDNMMAQN LVALPMFSVY SELTFGGYDP LSSDPQGGSG SHFSGSLNWI PVTKQAYWQI ALDGIQVGDT VMFCSEGCQA IVDTGTSLIT GPPDKIKQLQ EAIGATPIDG EYAVDCATLD TMPNVTFLIN EVSYTLNPTD YILPDLVEGM QFCGSGFQGL DIPPPAGPLW ILGDVFIRQF

YSVFDRGNNQ VGLAPAVPHH HHHH

**Biological Activity** 

The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

**Appearance** 

Lyophilized powder.

**Formulation** 

Lyophilized after extensive dialysis against PBS, pH 7.4.

**Endotoxin Level** 

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

Background

Cathepsin E is an aspartic protease and a member of the peptidase A1 family of proteases. As an intracellular, hydrolytic

aspartic protease, Cathepsin E is mainly expressed in cells of the immune and gastrointestinal systems, lymphoid tissues, erythrocytes, and cancer cells $^{[1]}$ .

Cathepsin E functions by breaking down proteins through the hydrolysis of peptide bonds at a specific peptide sequence site. And Cathepsin E plays an important role in the degradation of proteins, the generation of bioactive proteins, and antigen processing<sup>[2]</sup>.

Mouse Cathepsin E is synthesized as a precursor protein, consisting of a signal peptide (residues 1 18), a propeptide (residues 19 59), and a mature chain (residues 60 397)<sup>[3]</sup>.

### **REFERENCES**

- [1]. T Tsukuba, et al. New functional aspects of cathepsin D and cathepsin E. Mol Cells
- [2]. T Azuma, et al. Human gastric cathepsin E. Predicted sequence, localization to chromosome 1, and sequence homology with other aspartic proteinases. J Biol Chem
- [3]. PJ Tatnell, et al. Cloning, expression and characterisation of murine procathepsin E. FEBS Lett. 1997 May 12;408(1):62-6.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA