

Procathepsin E/ Cathepsin E, human recombinant protein
CTSE, Cathepsin E, Procathepsin E
Catalog # PBV11401r**Specification**

Procathepsin E/ Cathepsin E, human recombinant protein - Product info

Primary Accession	P14091
Calculated MW	43.6 kDa (20-401 aa + N-terminal polyhistidine tag) KDa

Procathepsin E/ Cathepsin E, human recombinant protein - Additional Info

Gene ID	1510
Gene Symbol	CTSE
Other Names	
CTSE, Cathepsin E, Procathepsin E	
Gene Source	Human
Source	E. coli
Assay&Purity	SDS-PAGE; ≥90%
Assay2&Purity2	N/A;
Recombinant	Yes
Results	>500 mU/mg
Sequence	20-401 aa
Target/Specificity	
Cathepsin E	

Application Notes

Reconstitute with water to 0.5-1 mg/ml. Aliquot and store at -20°C. Avoid repeated freezing and thawing cycles.

Format

Lyophilized

Storage

-20°C; Lyophilized from 5 mg/ml solution in a proprietary buffer

Procathepsin E/ Cathepsin E, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

Procathepsin E/ Cathepsin E, human recombinant protein - Images

Procathepsin E/ Cathepsin E, human recombinant protein - Background

Cathepsin E (EC: 3.4.23.34) (CTSE) is an intracellular gastric aspartyl protease. It was originally identified as a cathepsin D-like acid protease. It is active in acidic conditions in a pH range from 2.5 to 5.5. In vitro experiments have identified several CTSE substrates including insulin beta chain, neurokinin, and FGF. Although the function of CTSE is not completely understood, it has been implicated in several physiological and pathological processes. CTSE is required for antigen presentation on class II MHC molecules. CTSE-deficient macrophages show abnormalities such as autophagy. Like many other cathepsins, CTSE has emerged as a therapy target for cancers, such as pancreatic ductal adenocarcinoma (PDAC). In addition to PDAC, CTSE is also overexpressed in gastric carcinomas and cervical and lung adenocarcinomas. The possible involvement of CTSE in neurodegeneration has also been reported. This protease has a specificity similar to that of pepsin A and cathepsin D. It is found in highest concentration in the surface of epithelial mucus-producing cells of the stomach. It is found in more than half of gastric cancers.

Procathepsin E/ Cathepsin E, human recombinant protein - References

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