PRODUCT INFORMATION

Expression system E.coli

Domain 57-363aa

UniProt No. P14091

NCBI Accession No. NP_683865

Alternative Names Cathepsin E, CATE, CTSE

PRODUCT SPECIFICATION

Molecular Weight 35.4 kDa (330aa)

Concentration 1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

Purity

> 85% by SDS-PAGE

Tag His-Tag

Application SDS-PAGE, Denatured

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

Description

CTSE is a gastric aspartyl protease that functions as a disulfide-linked homodimer. CTSE, which is a member of the peptidase C1 family, has a specificity similar to that of pepsin A and cathepsin D. It is an intracellular proteinase that does not appear to be involved in the digestion of dietary protein and is found in highest concentration in the surface of epithelial mucus-producing cells of the stomach. It is the first aspartic proteinase expressed in the fetal stomach and is found in more than half of gastric cancers. It appears, therefore, to be an oncofetal antigen. Transcript variants utilizing alternative polyadenylation signals and two transcript variants



encoding different isoforms exist for this gene. Recombinant human CTSE protein, fused to His-tag at N-terminus, was expressed in E. coli.

Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH MGS>TESCSMD QSAKEPLINY LDMEYFGTIS IGSPPQNFTV IFDTGSSNLW VPSVYCTSPA CKTHSRFQPS QSSTYSQPGQ SFSIQYGTGS LSGIIGADQV SVEGLTVVGQ QFGESVTEPG QTFVDAEFDG ILGLGYPSLA VGGVTPVFDN MMAQNLVDLP MFSVYMSSNP EGGAGSELIF GGYDHSHFSG SLNWVPVTKQ AYWQIALDNM LWSVPTLTSC RMSPSPLTES PIPSAQLPTP YWTSWMECSS AAVAFKDLTS TLQLGPSGSW GMSSFDSFTQ SLTVGITVWD WPQQSPKEGP CVCACLSDRP

General References

Sealy L., et al. (1996) Eur. J. Immunol. 26:1838-1843 Cook M., et al. (2001) Eur. J. Biochem. 268:2658-2668

DATA

SDS-PAGE



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