PRODUCT INFORMATION

Expression system E.coli

Domain 18-333aa

UniProt No. P07711

NCBI Accession No. NP_001244901

Alternative Names Procathepsin L, Cathepsin L1, Major excreted protein, MEP, CTSL, CTSL1

PRODUCT SPECIFICATION

Molecular Weight 38.3 kDa (339aa) confirmed by MALDI-TOF

Concentration 1mg/ml (determined by Bradford assay)

Formulation Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

Purity > 85% by SDS-PAGE

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

Tag His-Tag

Application SDS-PAGE

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

CTSL, also known as cathepsin L1 isoform 1, is a lysosomal cysteine proteinase that plays a major role in intracellular protein catabolism. Its substrates include collagen and elastin, as well as alpha-1 protease inhibitor, a major controlling element of neutrophil elastase activity. The encoded protein has been implicated in several pathologic processes, including myofibril necrosis in myopathies and in myocardial ischemia, and in the renal



tubular response to proteinuria. This protein, which is a member of the peptidase C1 family, is a dimer composed of disulfide-linked heavy and light chains, both produced from a single protein precursor. Multiple alternatively spliced transcript variants have been found for this gene. Recombinant Human CTSL protein was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MGSTLTFDHS LEAQWTKWKA MHNRLYGMNE EGWRRAVWEK NMKMIELHNQ EYREGKHSFT MAMNAFGDMT SEEFRQVMNG FQNRKPRKGK VFQEPLFYEA PRSVDWREKG YVTPVKNQGQ CGSCWAFSAT GALEGQMFRK TGRLISLSEQ NLVDCSGPQG NEGCNGGLMD YAFQYVQDNG GLDSEESYPY EATEESCKYN PKYSVANDTG FVDIPKQEKA LMKAVATVGP ISVAIDAGHE SFLFYKEGIY FEPDCSSEDM DHGVLVVGYG FESTESDNNK YWLVKNSWGE EWGMGGYVKM AKDRRNHCGI ASAASYPTV

General References

Bauer Y., et al. (2011) Hypertension. 57(4):795-801 Wei DH., et al. (2013) Int J Mol Med. 31(2):400-6

DATA



15% SDS-PAGE (3ug)

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

