Recombinant Human Cathepsin D protein

Catalog Number: ATGP4086

PRODUCT INFORMATION

Expression system
HEK293

Domain
21-412aa

UniProt No.
P07339

NCBI Accession No.
NP_001900.1

Alternative Names
CTSD, CPSD, Cathepsin D, Lysosomal aspartyl protease, CLN10, Ceroid-lipofuscinosis, Neuronal 10

PRODUCT SPECIFICATION

Molecular Weight
43.4 kDa (398aa)

Concentration
1 mg/ml (determined by Absorbance at 280nm)

Formulation
Liquid in. 50mM MES buffer (pH 5.5) containing 100mM NaCl, 20% glycerol.

Purity
> 95% by SDS-PAGE

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

Biological Activity
Specific activity is > 20 pmol/min/ug, and is defined as the amount of enzyme that cleaves 1pmol of Mca-PLGL-Dpa-AR-NH2 per minute at pH 3.5 at 25C.

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 D, also known as lysosomal aspartyl protease, is a member of the peptidase C1 family, which is a normal and major component of lysosomes, and is found in almost all cells and tissues of mammals. The main physiological functions of cathepsin D consist of metabolic degradation of intracellular proteins, activation and degradation of polypeptide hormones and growth factors, activation of enzymatic precursors, processing of enzyme activators and inhibitors, brain antigen processing and regulation of programmed cell death. In addition, it secreted from human prostate carcinoma cells are responsible for the generation of angiostatin, a potent endogenous inhibitor of angiogenesis, suggesting its contribution to the prevention of tumor growth and angiogenesis-dependent growth of metastases. Recombinant human Cathepsin D, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

Amino acid Sequence

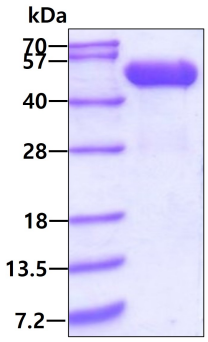
LVRIPLHKFT SIRRTMSEVG GSVEDLIAKG PVSKYSQAVP AVTEGPIPEV LKNYMDAQYY GEIGIGTPPQ CFTVVFDTGS SNLWVPSIHC KLLDIACWIH HKYNSDKSST YVKNGTSFDI HYGSGSLSGY LSQDTVSVPC QSASSASALG GVKVERQVFG EATKQPGITF IAAKFDGILG MAYPRISVNN VLPVFDNLMQ QKLVDQNIFS FYLSRDPDAQ PGGELMLGGT DSKYYKGSLS YLNVTRKAYW QVHLDQVEVA SGLTLCKEGC EAIVDTGTSL MVGPVDEVRE LQKAIGAVPL IQGEYMIPCE KVSTLPAITL KLGGKGYKLS PEDYTLKVSQ AGKTLCLSGF MGMDIPPPSG PLWILGDVFI GRYYTVFDRD NNRVGFAEAA RL<HHHHHH>

General References

Fusek M, et al. (2005). 149: 43-50.
Minarowska A, et al. (2007)l. 45: 159-163.
Tsukuba, et al. (2000) Mol. Cells 10:601-611.

DATA

SDS-PAGE



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