

Recombinant mouse Cathepsin C/DPPI protein

Catalog Number: ATGP4093

PRODUCT INFORMATION

Expression system

HEK293

Domain

25-462aa

UniProt No.

P97821

NCBI Accession No.

NP_034112.3

Alternative Names

Cathepsin C, AI047818, CatC, DP, DPP1, DPPI, Cathepsin J, Dipeptidyl peptidase isoform 1, Dipeptidyl peptidase 1, Dipeptidyl transferase, CTSC

PRODUCT SPECIFICATION

Molecular Weight

50.5kDa (444aa)

Concentration

0.5mg/ml (determined by Absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level

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

Biological Activity

Specific activity is > 50,000 pmol/min/ug and is defined as the amount of enzyme that hydrolyze 1pmole of Gly-Arg-AMC per minute at pH 6.0 at 37C.

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.

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BACKGROUND

Description

Cathepsin C/DPPI, also known as dipeptidyl peptidase I, is a lysosomal exo-cysteine protease belonging to the peptidase C1 protein family, a subgroup of the cysteine cathepsins. It catalyses excision of dipeptides from the N-terminus of protein and peptide substrates, except if the amino group of the N-terminus is blocked. Also, It appears to be a central coordinator for activation of many serine proteases in immune/inflammatory cells. Defects in the Cathepsin C have been shown to be a cause of Papillon-Lefevre disease, an autosomal recessive disorder characterized by palmoplantar keratosis and periodontitis. Also, It plays a key role in the activation of several degradative enzymes linked to tissue destruction in inflammatory diseases. Recombinant mouse Cathepsin C, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

Amino acid Sequence

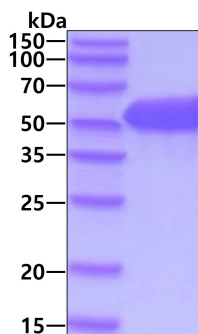
DTPANCTYPD LLGTWVFQVG PRSSRSIDINC SVMEATEEKV VVHLKCLDTA YDELGNSGHF TLIYNQGF EI VLNDYKWF AF
FKYEVRGHTA ISYCHETMTG WVHDVLGRNW ACFVGKKVES HIEKVMNAA HLGGLQERY S ERLYTHNHNF VKAINTVQKS
WTATAYKEYE KMSLRDLIRR SGHSQRIPRP KPAPMTDEIQ QQILNLPESW DWRNVQGVNY VSPVRNQESC GSCYSFASMG
MLEARIRILT NNSQTPILSP QEVVSCSPYA QGCDGGFPYL IAGKYAQDFG VVEESCFPYT AKDSPCKPRE NCLRYSSDY
YYVGGFYGGC NEALMKLELV KHGPMVAFAE VHDDFLHYHS GIYHHTGLSD PFNPFELTNH AVLLVGYGRD PVTGIEYWII
KNSWGSNWGE SGYFRIRRG T DECAIESIAV AAIPKPL<HH HHHH>

General References

Dahl SW., et al, (2001) *Biochemistry*. 40:1671-1678.
Turk D., et al, (2001) *The EMBO Journal*. 20:6570-6582.

DATA

SDS-PAGE



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