
Product Data Sheet

Product Name: CTSD Mouse

Cat. No.: GP21505

Batch No.: 1

Product Data

Purity	>98%	Source	Sf9, Baculovirus cells.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.

Synonyms Ctsd; CatD; CD; Cathepsin D.

Amino Acid Sequence

IIRIPLRKFT SIRRTMTEVG GSVEDLILKG PITKYSMQSS
 PKTTEPVSELLKNYLDAQYY GDIGIGTPPQ CFTVVFDTGGS SNLWVPSIHC
 KILDIACWVH HKYNSDKSST YVKNGTSFDIHYGSGSLSGY LSQDTVSVPC
 KSDQSKARGI KVEKQIFGEA TKQPGIVFVA AKFDGILGMG
 YPHISVNNVLPVFDNLMQQK LVDKNIFSFY LNRDPEGQPG GELMLGGTDS
 KYYHGELSYL NVTRKAYWQV HMDQLEVGNELTLCKGGCEA IVDTGTSLLV
 GPVEEVKELQ KAIGAVPLIQ GEYMIPCEKV SSLPTVYLKL
 GGKNYELHPDKYILKVSQGG KTICLSGFMG MDIPPPSGPL WILGDVFIGS
 YYTVFDRDNN RVGFANAVVL LEHHHHHH.

Formulation CTSD protein solution (0.25mg/ml) contains PhosphateBuffered Saline (pH 7.4) and 10% glycerol.

Introduction

Cathepsin D is synthesized as a 54kDa precursor, which is proteolytically processed to an intermediate 48kDa single chain, which matures into more stable 34kDa and 14kDa two chain form. It is an estrogen-regulated lysosomal protease that has been suggested to facilitate cancer cell migration and invasion by digesting the basement membrane, extracellular matrix, and connective tissue. Because of its mitogenic and proteolytic activities, it has been implicated as a prognostic marker in many tumor types. Cathepsin D is expressed in epithelial cells as well as in macrophages.

Biological Activity

Specific activity is > 1,000 pmol/min/ug in which one unit will convert 1.0 pmole of Mca-PLGL-Dpa-AR-NH₂ to MCA- Pro-Leu-OH per minute at pH 3.5 at 25C.

Caution: Product has not been fully validated for medical applications. For research use only.

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Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

CTSD produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 398 amino acids (21-410 a.a.) and having a molecular mass of 44.0kDa (Molecular size on SDS-PAGE will appear at approximately 40-57kDa). CTSD is expressed with an 8 amino acid His tag at C-Terminus and purified by proprietary chromatographic techniques.

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